

## DOCUMENT RESUME

ED 411 856

TM 004 823

TITLE Kentucky Educational Assessment Program 1974: Grade 8.

INSTITUTION Kentucky State Dept. of Education, Frankfort. Div. of Evaluation.

PUB DATE 74

NOTE 210p.; For related documents, see TM 004 821, 822, 824 and ED 077 940 and 941, ED 081 793 and ED 093 917

EDRS PRICE MF-\$0.76 HC-\$10.78 Plus Postage

DESCRIPTORS Basic Skills; Citizenship; Data Analysis; \*Educational Accountability; \*Educational Assessment; Educational Needs; \*Educational Objectives; Grade 8; Human Relations; Intelligence Quotient; Item Analysis; Junior High Schools; Occupational Aspiration; Sampling; Self Concept; \*State Programs; State Surveys; Student Attitudes; Test Results

IDENTIFIERS \*Kentucky Educational Assessment Program

## ABSTRACT

The Kentucky Education Assessment Program is an ongoing effort to gather information regarding progress toward attainment of the educational goals for Kentucky citizens. Major emphasis is on the determination of the actual level of pupil performance in relation to desired performance. In the eighth grade, relevant information was gathered in five goal areas: General Education, Human Relationships, Citizenship, Physical and Mental Well Being, and Occupational Competence. Recognizing that information attained through a statewide assessment program should be utilized for decision-making to improve educational programs, objectives, and goals, this assessment procedure was developed to be valid at three levels: local district, Educational Development District (EDD), and statewide. Regional and Statewide assessment data are reported.

(BJG)

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# kentucky educational assessment program

1974

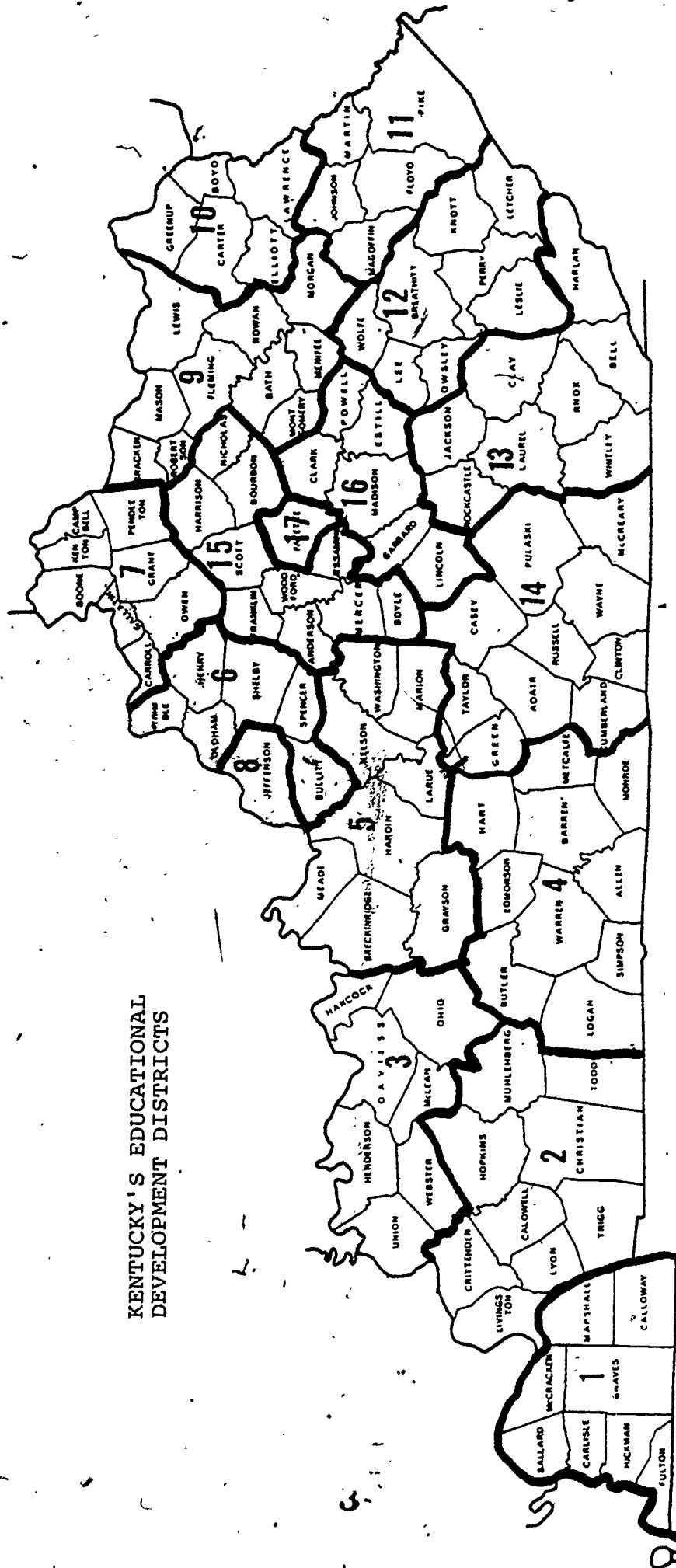
**GRADE 8**

Kentucky Department of Education  
Frankfort, Kentucky

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# KENTUCKY'S EDUCATIONAL DEVELOPMENT DISTRICTS



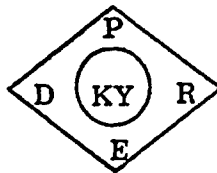
KENTUCKY EDUCATIONAL ASSESSMENT PROGRAM

TECHNICAL REPORT FOR EIGHTH GRADE



Prepared by

Division of Evaluation  
Office of Planning and Research



With the assistance of  
personnel of the  
Statewide Testing Program  
and  
Division of Computer Services

Lyman V. Ginger  
Superintendent of Public Instruction

Kentucky Department of Education  
Frankfort, Kentucky

1974



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF EDUCATION  
FRANKFORT, KY. 40601

LYMAN V. GINGER  
SUPERINTENDENT OF PUBLIC INSTRUCTION

Current economic conditions stress the imperative nature for the development of a comprehensive accountability program in Kentucky education. The ability to report concisely where we are and precisely where we are going continues to be a priority activity in the development of a credible model to sustain support of public education.

The Kentucky Department of Education is committed to a broad plan of action to move positively in the direction of accountability in education. With the adoption of Goals of Education in Kentucky by the State Board, there exists the base from which a viable effort can be implemented with a comprehensive assessment program being a major component.

This report represents a continuing effort by the department to report to the public and educators the progress being made toward our goals. Further development and implementation of a comprehensive assessment plan will ultimately result in measurement of progress toward the achievement of all the goals of education throughout the state.

*Lyman V. Ginger*

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## FOREWORD

The Kentucky Educational Assessment Program is an ongoing effort to gather information regarding progress toward attainment of the educational goals for Kentucky citizens. The source of the educational goals presented in this report is Goals of Education in Kentucky as published in 1973 by the Kentucky State Department of Education.

The reader should be aware that it is not feasible to conduct an assessment program for all of the educational goals for Kentucky citizens in a single year. Therefore, the 1974 assessment program focused upon predominant concerns determined from a survey of Kentucky citizens published in 1970 by the Kentucky State Department of Education. Those priority concerns included development of basic learning skills; development of knowledge and skills related to occupational competence; development of positive attitudes toward self, peers, school, reading, mathematics; and the development of positive attitudes toward citizenship. These concerns encompass five of the eight goal areas as set forth in the Goals of Education in Kentucky published in 1973. The goals are broad and general in nature; however, this is as it should be because it reflects long-range expectations. Specificity and detail were achieved through the development of objectives and the use of selected measurement items for assessing the status of pupil performance in relation to the priority developmental areas expressed in the composite goal.

It is recognized that a statewide assessment program can be justified only if the information obtained is utilized as the basis for decision-making to improve educational programs, objectives, and goals. Therefore, the assessment procedure was developed to be valid at three levels--local district, Educational Development District (EDD), and statewide. District

level data were provided to the individual local districts sampled, while regional and statewide assessment data are reported within this document.

Analyses of the assessment data were performed at several levels. For example, in reading, results are reported for the general areas of reading vocabulary and reading comprehension, as well as for specific skills/concepts within these general areas. Additional detailed information is provided by the reporting of individual measurement item results contributing to score levels for the specific skills/concepts. Reporting of data in this manner provides the educator with the opportunity to analyze local district results, as well as regional and statewide results at several levels in each developmental area described by the broad goal. The extent to which state, regional, and local educators find the present document to be useful in this regard will provide a measure of success of the Kentucky Educational Assessment Program.



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## INTRODUCTION

The major emphasis of the Kentucky Educational Assessment Program was to determine the actual level of performance of Kentucky pupils in relation to desired performance. The purpose of the assessment activities was to provide preliminary answers to the question: "Are Kentucky pupils doing as well as expected?"

In the eighth grade, relevant information was gathered in five of the eight goal areas which were established in 1973. They were:

Goal Area I: General Education

Goal Area III: Human Relationships

Goal Area IV: Citizenship

Goal Area VI: Physical and Mental Well Being

Goal Area VII: Occupational Competence

A summary of the Goals of Education in Kentucky is provided in Appendix A.

To measure performance within the goal areas, two concepts were employed which reflect current thinking in the area of educational assessment. These concepts are the development of performance objectives and the identification of learner needs.

### Performance Objective

A performance objective is a statement that expresses the performance level of expected behavior for a pupil or pupils in regard to a selected area of concern and measurement instrument. Performance objectives provide for the determination of actual pupil attainment in regard to expectations of pupil attainment by providing a criterion and other specific information necessary for determining progress toward meeting educational goals.

### Example Performance Objective

During the spring semester of 1974, Kentucky pupils will demonstrate reading comprehension by attaining an average grade equivalent score equal to or exceeding the criterion as measured by the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills.

Performance objectives for the 1974 Kentucky Educational Assessment Program were developed for individual skills/concepts within the general assessment areas. Numbers assigned to individual performance objectives reflect their position within a goal/objective hierarchy. Figure 1 illustrates the numbering system utilized.

#### GOAL AREA 1.0

##### Goal 1.1

Performance Objective 1.1.1	-- General area
Performance Objective 1.1.1.1	} Specific skills/concepts
Performance Objective 1.1.1.2	
Performance Objective 1.1.1.3	

FIGURE 1

#### GOAL AND OBJECTIVE NUMBERING

A complete list of the goals and related performance objectives used in the study is presented in Appendix B.

In developing the performance objectives for the assessment program, key terms described the behaviors measured by the objectives. These terms and definitions are:<sup>1</sup>

##### KNOWLEDGE

Involves the recognition and recall of facts (e.g., defining terms, recalling names, dates, persons, identifying words, etc.).

##### COMPREHENSION

The learner interprets, translates, summarizes, or paraphrases given material. The person can organize the material into another

<sup>1</sup>Benjamin S. Bloom, et al., Taxonomy of Educational Objectives, Handbook I: Cognitive Domain (New York: David McKay Company, Inc., 1956).

David R. Krathwohl, et al., Taxonomy of Educational Objectives, Handbook II: Affective Domain (New York: David McKay Company, Inc., 1956).

language or form of communication (e.g., reading a book or musical scores, grasping the thought of material studied, ability to describe something in one's own words, etc.).

#### APPLICATION

Involves the use of material in a situation which is different from that situation in which it was originally learned (e.g., the use of abstract ideas, principles, or theories in problem-solving).

#### ANALYSIS

Involves separating a complex entity into its parts, drawing comparisons and relationships between the elements (e.g., ability to recognize assumptions, to distinguish cause and effect relationships, reorganization of biases or points of view, etc.).

#### RESPOND

Involves the indication of affective behavior consistent with given expectations in a defined situation.

In addition to describing behavior, each objective specified a measurement instrument which assessed the behavior. Three test instruments were utilized in the 1974 Kentucky Educational Assessment Program for eighth grade. The Comprehensive Tests of Basic Skills, Form Q, Level 3, were used as the measurement device for the performance objectives dealing with cognitive behavior, the Kentucky Student Attitude Inventory (see Appendix D) was employed as the measurement instrument for attitudinal objectives, and the Assessment of Career Development was employed as the measurement instrument for the occupational competence objectives.

#### Learner Needs

A learner need is identified when actual pupil performance is below expected pupil performance as measured by a specific instrument. Figure 2 illustrates the concept of a learner need.

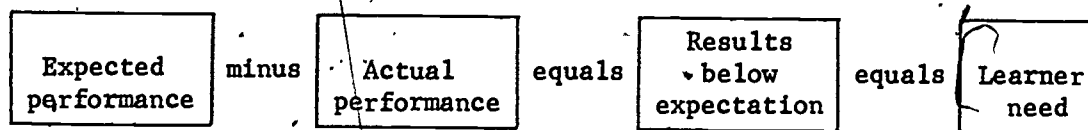


FIGURE 2  
LEARNER NEED

The identification of a learner need serves to indicate those areas in which pupils are not meeting expectations. Additional data should be collected and analyzed to determine the degree of need and the causes for the existence of learner needs. It should be recognized that the interaction of many factors (variables) contribute to indications of learner needs. A detailed examination of these factors is an essential step in the comprehensive assessment of educational programs.

In order to gather meaningful data describing educational performance for identification of indicated learner needs at the district, regional, and statewide levels, random sampling techniques were employed for selecting districts and pupils to participate. A description of the sampling procedures and a list of participating districts including the number of pupils tested are provided in Appendix C.

## STATEWIDE ASSESSMENT RESULTS

A summary of results for Kentucky pupils is provided in the present section. Actual attainment levels in relation to expected attainment levels are presented for general skill areas and specific skills/concepts by goal area. In addition, sample assessment items are provided for the general skill areas. In those instances where the results for boys differed markedly from the results for girls, additional data pointing out the differences are reported. Data tables indicating results for boys and girls are presented in Appendix E. Item analysis results organized by skills/concepts are provided in Appendix F.

### GOAL AREA I: GENERAL EDUCATION

Goal 1.1: Each citizen of the Commonwealth should be assured an opportunity to realize his full potential in written and oral communication, reading, computation, and mathematical concepts.

The general education goal was assessed the areas of (1) reading, (2) language, (3) arithmetic, and (4) study skills using the Comprehensive Tests of Basic Skills, Form Q, Level 3. A criterion of 8.7 grade equivalency was established as the level of desired performance. The results for Goal 1.1 are presented below.

#### Reading

##### Reading Vocabulary

##### Performance Objective 1.1.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of vocabulary by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Reading Vocabulary

Test Situation: Pupils were asked to choose the word which had a similar meaning to an underlined word.

Item: stop the game

- a. lose
- b. halt
- c. start
- d. win

Results

For the statewide sample, 38 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 7.8.

Specific Skills/Concepts Related to Knowledge of Reading Vocabulary

1.1.1.1 Knowledge of the Meaning of Words in Context

The expected criterion level for eighth grade pupils was established as 69 percent. The average percentage of correct items for the statewide sample was 63 percent.

Reading Comprehension

Performance Objective 1.1.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate reading comprehension by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Reading Comprehension

Test Situation: Pupils were asked to read written material and choose the best answer to questions relating to that material.

Item: (An article about bees) A bee colony usually consists of:

- a. 12,000 insects
- b. 60,000 insects
- c. 20,000 insects
- d. 42,000 insects

## Results

For the statewide sample, 38 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 7.8.

### Specific Skills/Concepts Related to Reading Comprehension

#### 1.1.2.1 Comprehension of Words and Phrases (Simple Rewording)

The expected criterion level for eighth grade pupils was established as 72 percent. The average percentage of correct items for the eighth grade statewide sample was 67 percent.

#### 1.1.2.2 Comprehension (Paraphrasing) of the Meaning of Ideas

The expected criterion level for eighth grade pupils was established as 71 percent. The average percentage of correct items for the eighth grade statewide sample was 64 percent.

#### 1.1.2.3 Comprehension of Main Ideas

The expected criterion level for eighth grade pupils was established as 65 percent. The average percentage of correct items for the eighth grade statewide sample was 55 percent.

#### 1.1.2.4 Comprehension of Relationships

The expected criterion level for eighth grade pupils was established as 63 percent. The average percentage of correct items for the eighth grade statewide sample was 58 percent.

#### 1.1.2.5 Comprehension (Draw Conclusions) of Given Facts and Statements

The expected criterion level for eighth grade pupils was established as 69 percent. The average percentage of correct items for the eighth grade statewide sample was 65 percent.

#### 1.1.2.6 Comprehension (Inference) of Contextual Clues

The expected criterion level for eighth grade pupils was established as 69 percent. The average percentage of correct items for the eighth grade statewide sample was 63 percent.

#### 1.1.2.7 Analysis of Indefinite or Incomplete Statements (Extended Meaning)

The expected criterion level for eighth grade pupils was established as 68 percent. The average percentage of correct items for the eighth grade statewide sample was 62 percent.

## Conclusions--Reading Results

Two areas related to the achievement of Kentucky pupils in reading were assessed statewide at the eighth grade level:

1. Knowledge of vocabulary
2. Reading comprehension

### Knowledge of Vocabulary

The assessment results indicate a learner need for eighth grade pupils in knowledge of vocabulary as well as for the related skill/concept of knowledge of the meaning of words in context.

### Reading Comprehension

The pupil performance data for reading comprehension indicate the existence of a learner need. Additional supportive evidence of this learner need is documented by the lack of attainment of the specified criteria in the related skills/concepts of:

1. Comprehension of words and phrase
2. Comprehension of meaning of ideas
3. Comprehension of main ideas
4. Comprehension of relationships
5. Comprehension of given facts and statements
6. Comprehension of contextual clues
7. Analysis of indefinite or incomplete statements

Item analysis data, listed by reading skill/concept for individual Educational Development Districts, as well as statewide, may be reviewed in Appendix F. Reading results by Educational Development District for reading subtests and individual skills/concepts are provided in a later section of the present report.

## Language

### Spelling

#### Performance Objective 1.1.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of spelling by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language/Spelling Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.



### Sample Assessment Item for Knowledge of Spelling

Test Situation: Pupils were asked to look at four words and identify the word that was incorrectly spelled or mark "none" if all four words were spelled correctly.

- Item:
- a. slim
  - b. house
  - c. automobile
  - d. spelling
  - e. none

### Results

For the statewide sample, 40 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 8.0.

### Specific Skills/Concepts Related to Knowledge of Spelling

#### 1.1.3.1 Knowledge of Correctly and Incorrectly Spelled Words

The expected criterion level for eighth grade pupils was established at 70 percent. The average percentage of correct items for the eighth grade statewide sample was 62 percent.

### Mechanics of Language

#### Performance Objective 1.1.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of the mechanics of language by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Items for Application of the Mechanics of Language

Test Situation: Pupils were asked to choose the answer which uses the best punctuation for an underlined part in a sentence. "Best as it is" was chosen if the underlined part was punctuated correctly.

- Item: She likes dolls - books, and animals.
- a. dolls. Books
  - b. dolls, books
  - c. dolls books
  - d. Best as it is.

Test Situation: Pupils were also asked to find the mistake in capitalization in underlined parts of sentences. If there was no mistake in capitalization, "none" was marked.

Item: Bob has four Friends named Jim, Jon, Greg, and Bill.  
a. b. c. d.

None  
e.

### Results

For the statewide sample, 40 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 8.0.

### Specific Skills/Concepts Related to Application of the Mechanics of Language

#### 1.1.4.1 Application of Punctuation Skills

The expected criterion level for eighth grade pupils was established as 74 percent. The average percentage of correct items for the eighth grade statewide sample was 68 percent.

#### 1.1.4.2 Application of Capitalization Skills

The expected criterion level for eighth grade pupils was established as 61 percent. The average percentage of correct items for the eighth grade statewide sample was 58 percent.

### Language Expression

#### Performance Objective 1.1.5

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of language expression by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Item for Application of Language Expression

Test Situation: Pupils were asked to choose the word or words to fill a blank in a sentence which best expressed the idea presented.

Item: The happy boys \_\_\_\_\_ down the street.

- a. stalked
- b. moved
- c. skipped
- d. calmly walked

## Results

For the statewide sample, 39 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 7.9.

### Specific Skills/Concepts Related to Application of Language Expression

#### 1.1.5.1 Application of Correct Grammatical Usage

The expected criterion level for eighth grade pupils was established as 70 percent. The average percentage of correct items for the eighth grade statewide sample was 62 percent.

#### 1.1.5.2 Comprehension of Clarity and/or Economy of Expression

The expected criterion level for eighth grade pupils was established as 52 percent. The average percentage of correct items for the eighth grade statewide sample was 45 percent.

#### 1.1.5.3 Comprehension of the Author's Implication (Word Choice)

The expected criterion level for eighth grade pupils was established as 70 percent. The average percentage of correct items for the eighth grade statewide sample was 61 percent.

### Conclusions--Language Results

Three areas related to the achievement of Kentucky pupils in language were assessed statewide at the eighth grade level:

1. Knowledge of spelling
2. Application of the mechanics of language
3. Application of language expression

#### Knowledge of Spelling

The assessment results provide evidence of a learner need for eighth grade pupils in knowledge of spelling as well as for the related skill/concept of knowledge of correctly and incorrectly spelled words.

#### Application of the Mechanics of Language

The assessment results for application of the mechanics of language provide evidence of a learner need for eighth grade pupils. Additional supporting data indicating learner needs in this area are documented for the following related skill/concept areas:

1. Application of punctuation skills
2. Application of capitalization skills

### Application of Language Expression

The pupil performance data for application of language expression indicate the existence of a learner need. Additional supporting evidence of this learner need is documented by the lack of attainment of the specified criterion in the related skills/concepts of:

1. application of correct grammatical usage.
2. comprehension, clarity, and/or economy of expression.
3. comprehension of the author's implication.

Item analysis data, listed by language skills/concepts for individual Educational Development Districts, as well as statewide, may be reviewed in Appendix F. Language results by Educational Development District for language subtests and individual skills/concepts are provided in a later section of the present report.

### Arithmetic

#### Arithmetic Computation

##### Performance Objective 1.1.6

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of arithmetic computation by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

#### Sample Assessment Item for Application of Arithmetic Comprehension

Test Situation: Pupils were asked to choose the correct answer to problems of addition, subtraction, multiplication, and division.

- Item:  $6\overline{)426}$
- a. 25
  - b. 32
  - c. 71
  - d. 16

### Results

For the statewide sample, 37 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 7.9.

## Specific Skills/Concepts Related to Application of Arithmetic Computation

### 1.1.6.1 Application of Addition Skills

The expected criterion level for eighth grade pupils was established as 75 percent. The average percentage of correct items for the eighth grade statewide sample was 68 percent.

### 1.1.6.2 Application of Subtraction Skills

The expected criterion level for eighth grade pupils was established as 70 percent. The average percentage of correct items for the eighth grade statewide sample was 63 percent.

### 1.1.6.3 Application of Multiplication Skills

The expected criterion level for eighth grade pupils was established as 73 percent. The average percentage of correct items for the eighth grade statewide sample was 69 percent.

### 1.1.6.4 Application of Division Skills

The expected criterion level for eighth grade pupils was established as 73 percent. The average percentage of correct items for the eighth grade statewide sample was 68 percent.

## Arithmetic Concepts

### Performance Objective 1.1.7

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of arithmetic concepts by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Item for Comprehension of Arithmetic Concepts

Test Situation: Pupils were asked to choose the correct answer for questions relating to various arithmetic concepts.

Item: Seven multiplied by seven is the same as

- a.  $\sqrt{7}$
- b.  $7 \cdot 7 \cdot 7$
- c.  $7 \div 7$
- d.  $7^2$

### Results

For the statewide sample, 42 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 8.1.

## Specific Skills/Concepts Related to Comprehension of Arithmetic Concepts

### 1.1.7.1 Knowledge of Arithmetic Concepts

The expected criterion level for eighth grade pupils was established as 73 percent. The average percentage of correct items for the eighth grade statewide sample was 69 percent.

### 1.1.7.2 Comprehension of Arithmetic Concepts (Converting Form)

The expected criterion level for eighth grade pupils was established as 69 percent. The average percentage of correct items for the eighth grade statewide sample was 64 percent.

### 1.1.7.3 Comprehension of Equations

The expected criterion level for eighth grade pupils was established as 77 percent. The average percentage of correct items for the eighth grade statewide sample was 78 percent.

### 1.1.7.4 Comprehension of Comparative Relationships

The expected criterion level for eighth grade pupils was established as 73 percent. The average percentage of correct items for the eighth grade statewide sample was 64 percent.

### 1.1.7.5 Analysis of the Components of Arithmetic Problems (Organization)

The expected criterion level for eighth grade pupils was established as 68 percent. The average percentage of correct items for the eighth grade statewide sample was 63 percent.

## Arithmetic Applications

### Performance Objective 1.1.8

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of skills in solving arithmetic word problems by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Item for Application of Skills in Solving Arithmetic Word Problems

**Test Situation:** Pupils were asked to read an arithmetic word problem and to choose the correct answer for that problem.

**Item:** John has a board 120 inches long. How long is John's board in feet?

- a. 6 feet
- b. 1200 feet
- c. 12 feet
- d. 10 feet

## Results

For the statewide sample, 37 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 7.7.

### Specific Skills/Concepts Related to Application of Skills in Solving Arithmetic Word Problems

#### 1.1.8.1 Comprehension of Relationships (Ratio, Time, Part-Whole, Sequence, Geometric)

The expected criterion level for eighth grade pupils was established as 68 percent. The average percentage of correct items for the eighth grade statewide sample was 60 percent.

#### 1.1.8.2 Comprehension of Problem-Solving (Selecting Methods)

The expected criterion level for eighth grade pupils was established as 69 percent. The average percentage of correct items for the eighth grade statewide sample was 60 percent.

#### 1.1.8.3 Comprehension of Problem-Solving (Correct Solution)

The expected criterion level for eighth grade pupils was established as 74 percent. The average percentage of correct items for the eighth grade statewide sample was 67 percent.

#### 1.1.8.4 Analysis of the Components of Arithmetic Word Problems (Organization)

The expected criterion level for eighth grade pupils was established as 70 percent. The average percentage of correct items for the eighth grade statewide sample was 60 percent.

### Conclusions--Arithmetic Results

Three areas related to the achievement of Kentucky pupils in arithmetic were assessed statewide at the eighth grade level:

1. Application of arithmetic computation
2. Comprehension of arithmetic concepts
3. Application of skills in solving arithmetic word problems

#### Application of Arithmetic Computation

The pupil performance data for arithmetic computation indicate the existence of a learner need. Additional supporting

evidence of this learner need is documented by the lack of attainment of the specified criterion in the related skills/concepts of:

1. application of addition skills.
2. application of subtraction skills.
3. application of multiplication skills.
4. application of division skills.

#### Comprehension of Arithmetic Concepts

The criterion of an average 8.7 grade equivalency was not attained. Consequently, a learner need was indicated.

In addition, the assessment results provide evidence of learner needs for the following skills/concepts related to comprehension of arithmetic concepts:

1. Knowledge of arithmetic concepts
2. Comprehension of arithmetic concepts
3. Comprehension of comparative relationships
4. Analysis of the components of arithmetic word problems

#### Application of Skills in Solving Arithmetic Word Problems

The assessment results for application of skills in solving arithmetic word problems provide evidence of a learner need for eighth grade pupils. Additional supporting data indicating learner needs in this area are documented for the following related skill/concept areas:

1. Comprehension of relationships (ratio, time, part-whole, sequence, geometric)
2. Comprehension of problem-solving (selecting methods)
3. Comprehension of problem-solving (correct solution)
4. Analysis of the components of arithmetic word problems

Item analysis data, listed by arithmetic skills/concepts for individual Educational Development Districts, as well as statewide, may be reviewed in Appendix F. Arithmetic results by Educational Development District for arithmetic subtests and individual skills/concepts are provided in a later section of the present report.

#### Study Skills

#### Reference Materials

##### Performance Objective 1.1.9

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of reference material techniques by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.



Sample Assessment Item for Knowledge of Reference Material Techniques

Test Situation: Pupils were asked to read various reference materials and choose the correct answer for questions regarding these materials.

Item: (Review of library cards) The oldest book is listed on

- a. card #1.
- b. card #2.
- c. card #3.
- d. none of the cards.

Results

For the statewide sample, 43 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 8.1.

Specific Skills/Concepts Related to Knowledge of Reference Material Techniques

1.1.9.1 Knowledge of Dictionary Use

The expected criterion level for eighth grade pupils was established as 64 percent. The average percentage of correct items for the eighth grade statewide sample was 65 percent.

1.1.9.2 Knowledge of Library Use

The expected criterion level for eighth grade pupils was established as 67 percent. The average percentage of correct items for the eighth grade statewide sample was 62 percent.

Graphic Materials

Performance Objective 1.1.10

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of graphic materials by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Graphic Materials

Test Situation: Pupils were asked to look at and to use various graphic materials and choose correct answers to questions relating to that materials.

Item: (a graph presenting the population growth by areas in Kentucky) Which area had the greatest population growth from 1960 to 1965.

- a. Area I
- b. Area II
- c. Area III
- d. Area IV

### Results

For the statewide sample, 42 percent of the eighth grade pupils attained the criterion of 8.7 grade equivalency, and the statewide average grade equivalent score was 8.2.

### Specific Skills/Concepts Related to Comprehension of Graphic Materials

#### 1.1.10.1 Comprehension of Symbols, Legends, and Data Presented in Graphic or Tabular Form

The expected criterion level for eighth grade pupils was established as 51 percent. The average percentage of correct items for the eighth grade statewide sample was 59 percent.

#### 1.1.10.2 Comprehension of Relationships Presented in Graphic Form

The expected criterion level for eighth grade pupils was established as 56 percent. The average percentage of correct items for the eighth grade statewide sample was 61 percent.

#### 1.1.10.3 Comprehension (Draw Conclusions) of Graphic Data

The expected criterion level for eighth grade pupils was established as 52 percent. The average percentage of correct items for the eighth grade statewide sample was 56 percent.

#### 1.1.10.4 Analysis of Graphic Data to Determine Extended Meaning.

The expected criterion level for eighth grade pupils was established as 55 percent. The average percentage of correct items for the eighth grade statewide sample was 57 percent.

### Conclusions--Study Skills Results

Two areas related to the achievement of Kentucky pupils in study skills were assessed statewide at the eighth grade level:

- 1. Knowledge of reference material techniques
- 2. Comprehension of graphic materials

### Knowledge of Reference Material Techniques

The criterion of 8.7 was not attained by Kentucky pupils. Therefore, a learner need was evidenced for knowledge of reference material techniques. However, the compiled results indicate that the desired criterion was met for the related skill/concept concerned with knowledge of dictionary use. The results for knowledge of library use demonstrate that, for this skill/concept, the criterion level was not attained.

### Comprehension of Graphic Materials

The pupil performance data for comprehension of graphic materials indicate the existence of a learner need. However, at the skill/concept level, the expected criteria were attained in all areas. These include:

1. comprehension of symbols, legends, and data presented in graphic and tabular form.
2. comprehension of relationships presented in graphical form.
3. comprehension (draw conclusions) of graphic data.
4. analysis of graphic data to determine extended meaning.

Item analysis data, listed by study skills/concepts for individual Educational Development Districts, as well as statewide, may be reviewed in Appendix F. Study skill results by Educational Development District for study skills subtests and individual skills/concepts are presented in a later section of the present report.

### Statewide Profiles--General Education Goals

The assessment results for the basic skill areas are described on the following pages in statewide profiles. Results encompassing the areas of reading, language, arithmetic, and study skills are illustrated.

The following information is provided in Figure 3:

1. Desired criterion level as indicated by the dotted line.
2. Average grade equivalent score attained by the pupil sample as noted by the black dot.
3. Parameters of the major clustering of pupil scores as indicated by the shaded bar.

Due to measurement error, which occurs in any measurement of pupil performance, it is noted that the true average grade equivalent score for the sample group will vary from the reported average grade equivalent score and would be positioned within the limits delineated for each subtest area by the shaded bar representing the major clustering of individual pupil scores.

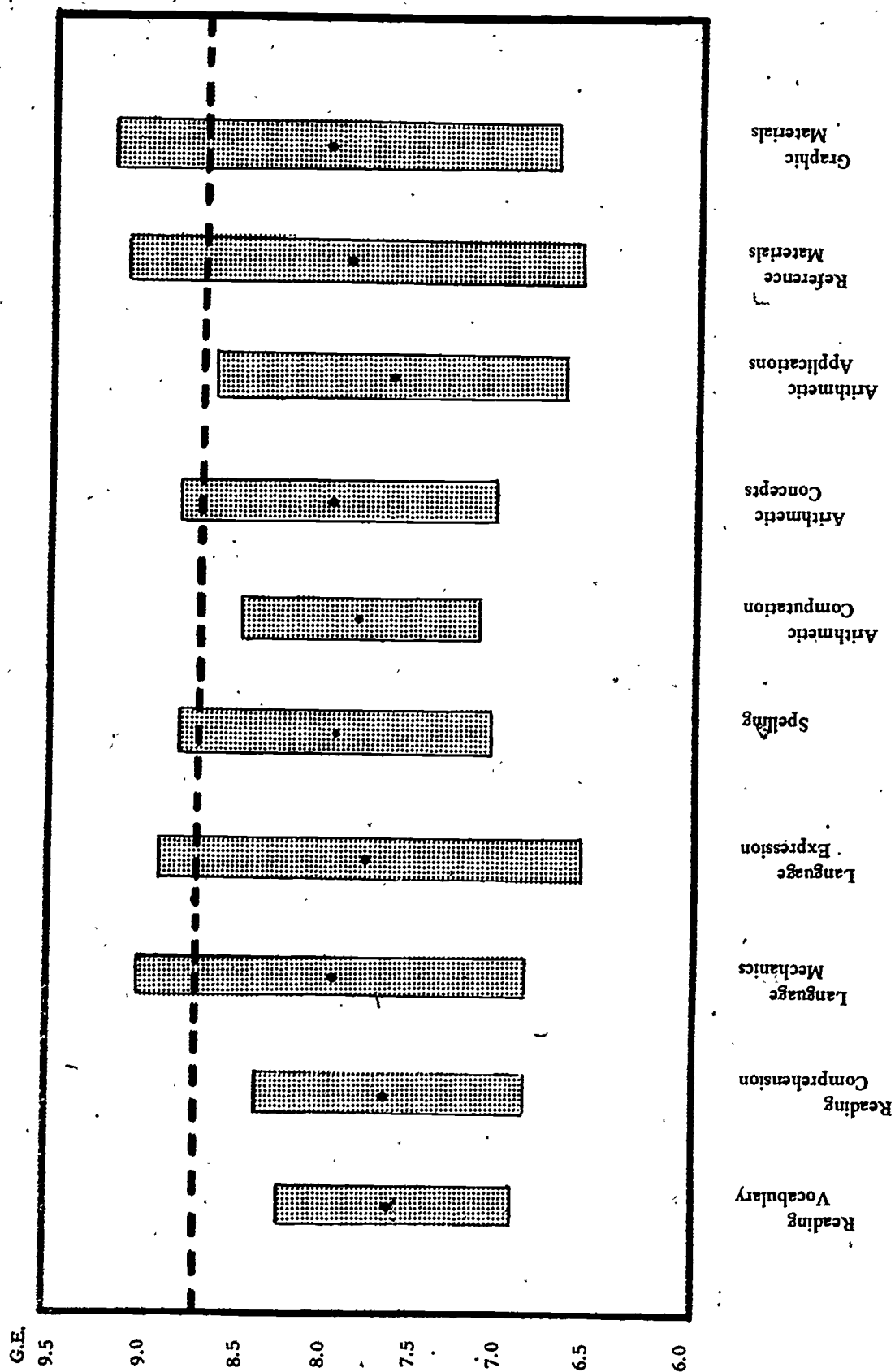


Figure 3

AVERAGE GRADE EQUIVALENT PROFILE AND MEASUREMENT PARAMETERS OF EIGHTH GRADE PUPILS,  
 STATE-WIDE, FOR THE BASIC SKILL AREAS AS MEASURED BY THE  
 COMPREHENSIVE TESTS OF BASIC SKILLS, FORM Q, LEVEL 3

Criterion = 8.7

The percentage of Kentucky pupils meeting the criterion of 8.7, for each subtest, is reported in Figure 4. If the scores of the sample pupil group were normally distributed and had met or exceeded the expected criterion level, then 50 percent or more of the pupils would be expected to score at or above the expected criterion level.

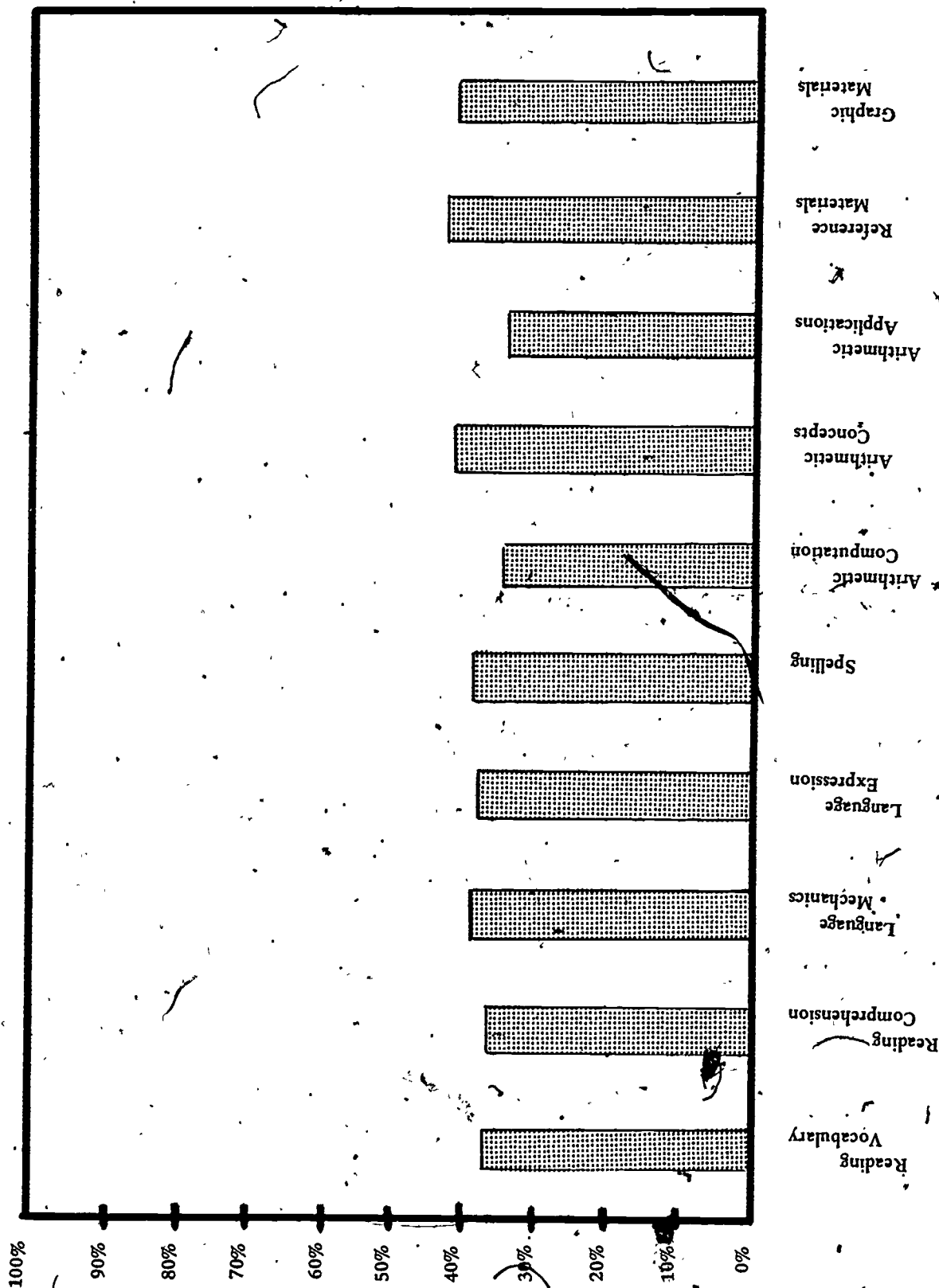


Figure 4

PERCENTAGE PROFILE OF EIGHTH GRADE PUPILS, STATEWIDE, MEETING THE CRITERION\*  
IN BASIC SKILL AREAS AS MEASURED BY THE  
COMPREHENSIVE TESTS OF BASIC SKILLS, FORM Q, LEVEL 3

\*Criterion = 8.7

Goal 1.7: Each citizen of the Commonwealth should be assured an opportunity to develop a positive attitude toward the acquisition of knowledge - both formal and informal.

The assessment of Goal 1.7 involved measurement of affective behavior concerning attitudes toward (1) school, (2) reading, and (3) arithmetic. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 1.7 are presented below.

#### Attitude toward School

##### Performance Objective 1.7.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward school by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

#### Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward school.

Statement #1. School is fair to students.

Of the pupils in the statewide sample, 65 percent responded positively (agreement with statement).

Statement #2. I often get discouraged in school.

Of the pupils in the statewide sample, 41 percent responded positively (disagreement with statement).



Statement #3. I am thinking about quitting school.

Of the pupils in the statewide sample, 88 percent responded positively (disagreement with statement).

Statement #4. I often feel upset in school.

Of the pupils in the statewide sample, 58 percent responded positively (disagreement with statement).

Statement #5. I believe I am getting a good education in school.

Of the pupils in the statewide sample, 85 percent responded positively (agreement with statement).

Statement #6. Coming to school is worthwhile.

Of the pupils in the statewide sample, 83 percent responded positively (agreement with statement).

Statement #7. My grades in school discourage me.

Of the pupils in the statewide sample, 68 percent responded positively (disagreement with statement).

Statement #8. I can get information at school concerning college and future work.

Of the pupils in the statewide sample, 75 percent responded positively (agreement with statement).

### Attitude Toward Reading

#### Performance Objective 1.7.2

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward reading by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

### Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward reading.

Statement #1. I like to read before I go to bed..

Of the pupils in the statewide sample, 49 percent responded positively (agreement with statement).

Statement #2. I am not a very good reader.

Of the pupils in the statewide sample, 71 percent responded positively (disagreement with statement).

Statement #3. Reading is one of my favorite activities.

Of the pupils in the statewide sample, 41 percent responded positively (agreement with statement).

Statement #4. Reading is not very important.

Of the pupils in the statewide sample, 88 percent responded positively (disagreement with statement).

Statement #5. When I have some free time, I like to read a book.

Of the pupils in the statewide sample, 59 percent responded positively (agreement with statement).

Statement #6. I like to read hard books.

Of the pupils in the statewide sample, 37 percent responded positively (agreement with statement).

Statement #7. I like to answer questions about things I have read in school.

Of the pupils in the statewide sample, 55 percent responded positively (agreement with statement).

Statement #8. Most school books are not very interesting.

Of the pupils in the statewide sample, 44 percent responded positively (disagreement with statement).

### Attitude Toward Arithmetic

#### Performance Objective 1.7.3

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward arithmetic by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

## Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward arithmetic.

Statement #1. Mathematics is interesting to me.

Of the pupils in the statewide sample, 59 percent responded positively (agreement with statement).

Statement #2. Mathematics is not my favorite subject.

Of the pupils in the statewide sample, 38 percent responded positively (disagreement with statement).

Statement #3. I would like to spend more time in working mathematics problems.

Of the pupils in the statewide sample, 38 percent responded positively (agreement with statement).

Statement #4. Mathematics is not very important.

Of the pupils in the statewide sample, 87 percent responded positively (disagreement with statement).

Statement #5. Working out mathematics problems is interesting.

Of the pupils in the statewide sample, 60 percent responded positively (agreement with statement).

Statement #6. Mathematics really makes me feel good.

Of the pupils in the statewide sample, 32 percent responded positively (agreement with statement).

Statement #7. I don't like to explain mathematics problems.

Of the pupils in the statewide sample, 39 percent responded positively (disagreement with statement).

Statement #8. I would like to spend more time working with mathematics.

Of the pupils in the statewide sample, 41 percent responded positively (agreement with statement).

Conclusions--Attitude Toward School, Reading, and Arithmetic

It may be generally concluded that the performance objectives related to eighth grade pupils' attitudes toward school, reading, and arithmetic were attained. However, these were individual statements for which less than 50 percent of the pupils gave the desired directional response.

These statements were the following:

School

Statement #2: I often get discouraged in school.

Reading

Statement #1: I like to read before I go to bed.

Statement #3: Reading is one of my favorite activities.

Statement #6: I like to read hard books.

Statement #8: Most school books are not very interesting.

Arithmetic

Statement #2: Mathematics is not my favorite subject.

Statement #3: I would like to spend more time in working mathematics problems.

Statement #6: Mathematics really makes me feel good.

Statement #7: I don't like to explain mathematics problems.

Statement #8: I would like to spend more time working with mathematics.

Appendix E, gives the statewide percentages of desired directional responses for eighth grade pupils by sex.

A breakdown of the results by Educational Development District is presented in a later section of the present report.

### GOAL AREA III: HUMAN RELATIONSHIPS

Goal 3.2: Each citizen of the Commonwealth should have an understanding of the worth and dignity of other people.

The assessment of Goal 3.2 involved measurement of affective behavior concerning attitude toward peers. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 3.2 are presented below.

#### Performance Objective 3.2.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward peers by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

#### Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward peers.

Statement #1. Making friends at school is easy.

Of the pupils in the statewide sample, 82 percent responded positively (agreement with statement).

Statement #2. I like my classmates.

Of the pupils in the statewide sample, 95 percent responded positively (agreement with statement).

Statement #3. I don't care if I make the same grades as my friends.

Of the pupils in the statewide sample, 44 percent responded positively (disagreement with statement).

Statement #4. Students in my school make other students feel welcome.

Of the pupils in the statewide sample, 68 percent responded positively (agreement with statement).

Statement #5. I look forward to seeing my friends at school.

Of the pupils in the statewide sample, 93 percent responded positively (agreement with statement).

Statement #6. I have lots of friends in school.

Of the pupils in the statewide sample, 88 percent responded positively (agreement with statement).

Statement #7. My friends have difficulty with reading.

Of the pupils in the statewide sample, 75 percent responded positively (disagreement with statement).

Statement #8. I get discouraged with my friends.

Of the pupils in the statewide sample, 59 percent responded positively (disagreement with statement).

#### Conclusions--Attitude Toward Peers

It may be generally concluded that the performance objectives related to eighth grade pupils' attitudes toward peers were attained. However, these were individual statements for which less than 50 percent of the pupils gave the desired directional (positive) response.

These statements were the following:

Statement #3: I don't care if I make the same grades as my friends.

## GOAL AREA IV: CITIZENSHIP

Goal 4.3: Each citizen of the Commonwealth should have a knowledge of the interdependence of the individual's rights and responsibilities in a democracy.

The assessment of Goal 4.3 involved measurement of affective behavior concerning attitude toward peers. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 4.3 are presented below.

Performance Objective 4.3.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward citizenship by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward citizenship.

Statement #1. If everyone disobeys a civil law, then it is okay for me to disobey it too.

Of the pupils in the statewide sample, 87 percent responded positively (disagreement with statement).

Statement #2. Democracy and the democratic processes should be practiced within the school.

Of the pupils in the statewide sample, 69 percent responded positively (agreement with statement).

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Statement #3. To succeed in politics, one must compromise his principles.

Of the pupils in the statewide sample, 21 percent responded positively (disagreement with statement).

Statement #4. I feel that everyone should register and vote.

Of the pupils in the statewide sample, 79 percent responded positively (agreement with statement).

Statement #5. I believe that every student should be taught to respect the laws of government.

Of the pupils in the statewide sample, 93 percent responded positively (agreement with statement).

Statement #6. It has been said that the simplest form of government has its origin in the home.

Of the pupils in the statewide sample, 79 percent responded positively (agreement with statement).

Statement #7. I believe that for every right and privilege there is a corresponding responsibility.

Of the pupils in the statewide sample, 90 percent responded positively (agreement with statement).

Statement #8. It is important to understand the purposes, structure, and functioning of the United Nations.

Of the pupils in the statewide sample, 87 percent responded positively (agreement with statement).

#### Conclusion--Attitude Toward Citizenship Results

According to the needs assessment results, the performance objective related to eighth grade pupils' attitudes toward citizenship was attained on a statewide basis. However, there was one statement where less than 50 percent of the pupils gave the desired directional (positive) response. This statement is as follows:

Statement #3: To succeed in politics, one must compromise his principles.



Appendix E gives the statewide percentages of desired directional responses for eighth grade pupils by sex.

A breakdown of the results by Educational Development District is presented in a later section of the present report.

## GOAL AREA VI: PHYSICAL AND MENTAL WELL BEING

Goal 6.3: Each citizen of the Commonwealth should have a positive and realistic acceptance of self.

The assessment of Goal 6.3 involved measurement of affective behavior concerning attitude toward peers. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 6.3 are presented below.

Performance Objective 6.3.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward self by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Results

The percentage of eighth grade pupils meeting the criterion as well as the desired directional response is provided for each related item concerning attitude toward self.

Statement #1. I make friends easily.

Of the pupils in the statewide sample, 92 percent responded positively (agreement with statement).

Statement #2. I generally feel comfortable in my classes.

Of the pupils in the statewide sample, 77 percent responded positively (agreement with statement).

Statement #3. I am not very cheerful.

Of the pupils in the statewide sample, 83 percent responded positively (disagreement with statement).

Statement #4. If I have something to say, I generally say it.

Of the pupils in the statewide sample, 69 percent responded positively (agreement with statement).

Statement #5. I am easy to like.

Of the pupils in the statewide sample, 84 percent responded positively (agreement with statement).

Statement #6. My classmates do better in school than I do.

Of the pupils in the statewide sample, 67 percent responded positively (disagreement with statement).

Statement #7. My studying is not satisfactory.

Of the pupils in the statewide sample, 62 percent responded positively (disagreement with statement).

Statement #8. I know my subjects very well.

Of the pupils in the statewide sample, 61 percent responded positively (agreement with statement).

#### Conclusions--Attitude Toward Self

It may be generally concluded that the performance objectives related to eighth grade pupils' attitudes toward self were attained. There were no individual statements for which less than 50 percent of the pupils gave the desired directional (positive) response.

#### Statewide Profile Attitudinal Goals

The assessment results for the attitudinal areas are illustrated on the following page as a statewide profile. Figure 5 indicates the average percentage of Kentucky pupils meeting the criterion of 50 percent positive response.

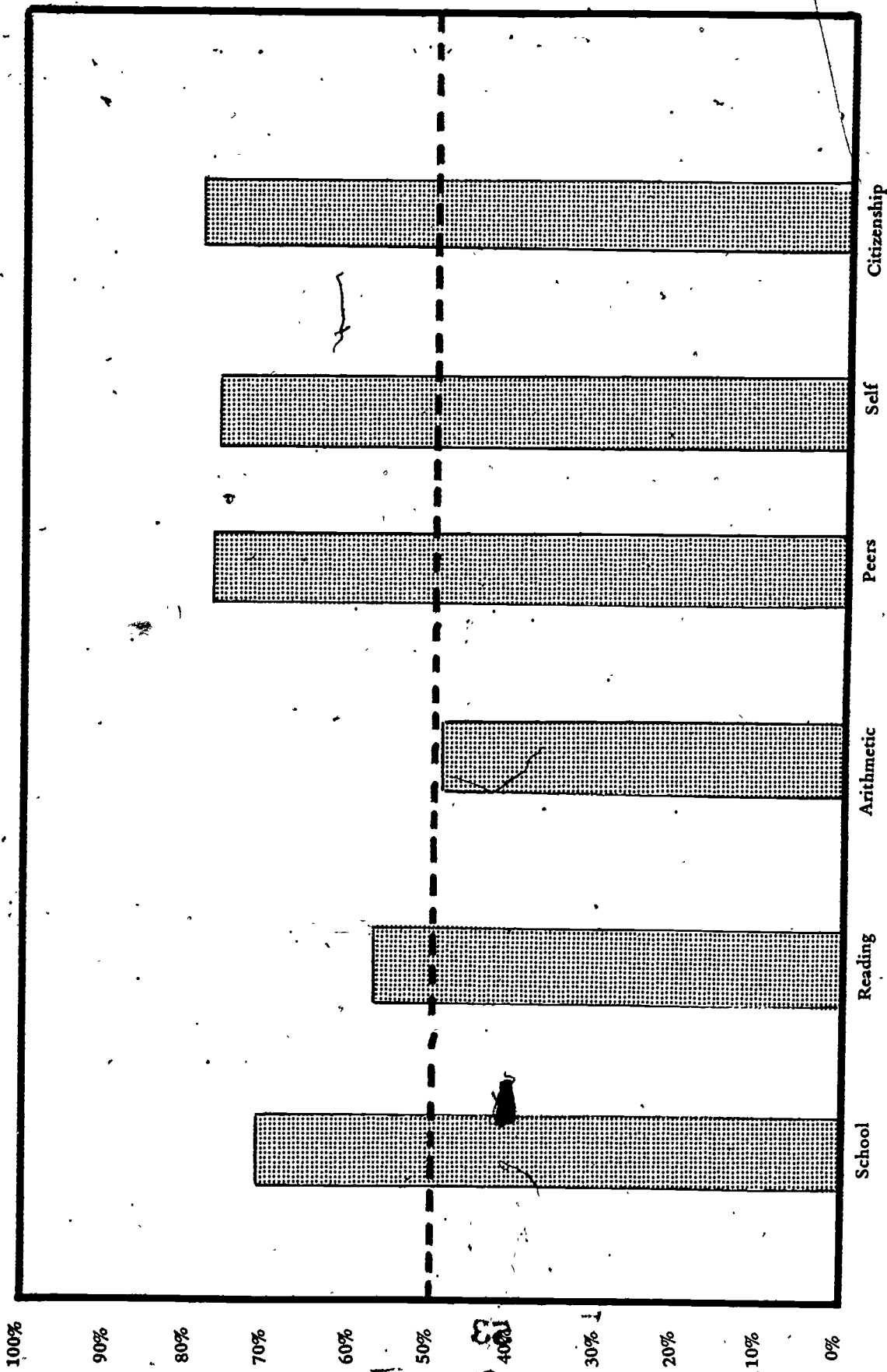


Figure 5

AVERAGE PERCENTAGE PROFILE OF PUPILS, STATEWIDE, MEETING THE CRITERION\*  
IN ATTITUDINAL AREAS AS MEASURED BY  
THE KENTUCKY STUDENT ATTITUDE INVENTORY

\*Criterion = 50%

## GOAL AREA VII: OCCUPATIONAL COMPETENCE

Goal 7.2: Each citizen of the Commonwealth should have an understanding of the variety of career opportunities.

The occupational competence goal was assessed in the areas of (1) occupational characteristics, (2) occupational preparational requirements and (3) career planning using the Assessment of Career Development, Form C. The 50th percentile of the national norm at the eighth grade was established as the level of desired performance. The results for Goal 7.2 are presented below.

### OCCUPATIONAL CHARACTERISTICS

#### Performance Objective 7.2.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational characteristics by attaining a raw score equal to or exceeding the criterion (31) as measured by the occupational characteristics scale of the Assessment of Career Development, Form C.

#### Sample Assessment Item for Knowledge of Occupational Characteristics

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: A certified public accountant.

- a. certifies applicants for public housing
- b. compiles and checks business records
- c. decides how products should be advertised
- d. does public relations work

#### Results

For the statewide sample, 52 percent of the eighth grade pupils attained the criterion of 31 correct answers, and the statewide average number of correct answers was 31.

A breakdown of the results by Educational Development District is presented in a later section of the present report.

### OCCUPATIONAL PREPARATION REQUIREMENTS

#### Performance Objective 7.2.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational preparation requirements by attaining a raw score equal to or exceeding the criterion (9) as measured by the occupational preparation requirements scale of the Assessment of Career Development, Form C.

#### Sample Assessment Item for Knowledge of Occupational Preparation Requirements

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: It is usually necessary to enter an apprenticeship program to become a \_\_\_\_\_

- a. dry cleaner
- b. florist
- c. plumber
- d. bank teller

#### Results

For the statewide sample, 66 percent of the eighth grade pupils attained the criterion of 9 correct answers, and the average number of correct answers was 10.

A breakdown of the results by Educational Development District is presented in a later section of the present report.

### CAREER PLANNING KNOWLEDGE

#### Performance Objective 7.2.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of the various aspects of career planning by attaining a raw score equal to or exceeding the criterion (23) as measured by the career planning knowledge scale of the Assessment of Career Development, Form C.

### Sample Assessment Item for Knowledge of Career Planning

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: Choosing a job is similar to choosing a marriage partner in that

- a. there is little you can do to prepare for either choice.
- b. how a person feels about the choice is important in both cases.
- c. there is only one right person and one right job for each of us.
- d. both choices are final.

### Results

For the statewide sample, 56 percent of the eighth grade pupils attained the criterion of 23 correct answers and the statewide average number of correct answers was 23.

A breakdown of the results by Educational Development District is presented in a later section of the present report.

### Statewide Profile of Occupational Competence Goals

The assessment results for the occupational competence areas are illustrated on the following page as a statewide profile reported in Figure 6.

The following information is in Figure 6.

1. The criterion level for each area as indicated by the dotted line.
2. The average number correct attained by the pupil sample as indicated by the bar.
3. The percentage of the pupil sample meeting the criterion as indicated by the shaded section of the circle.

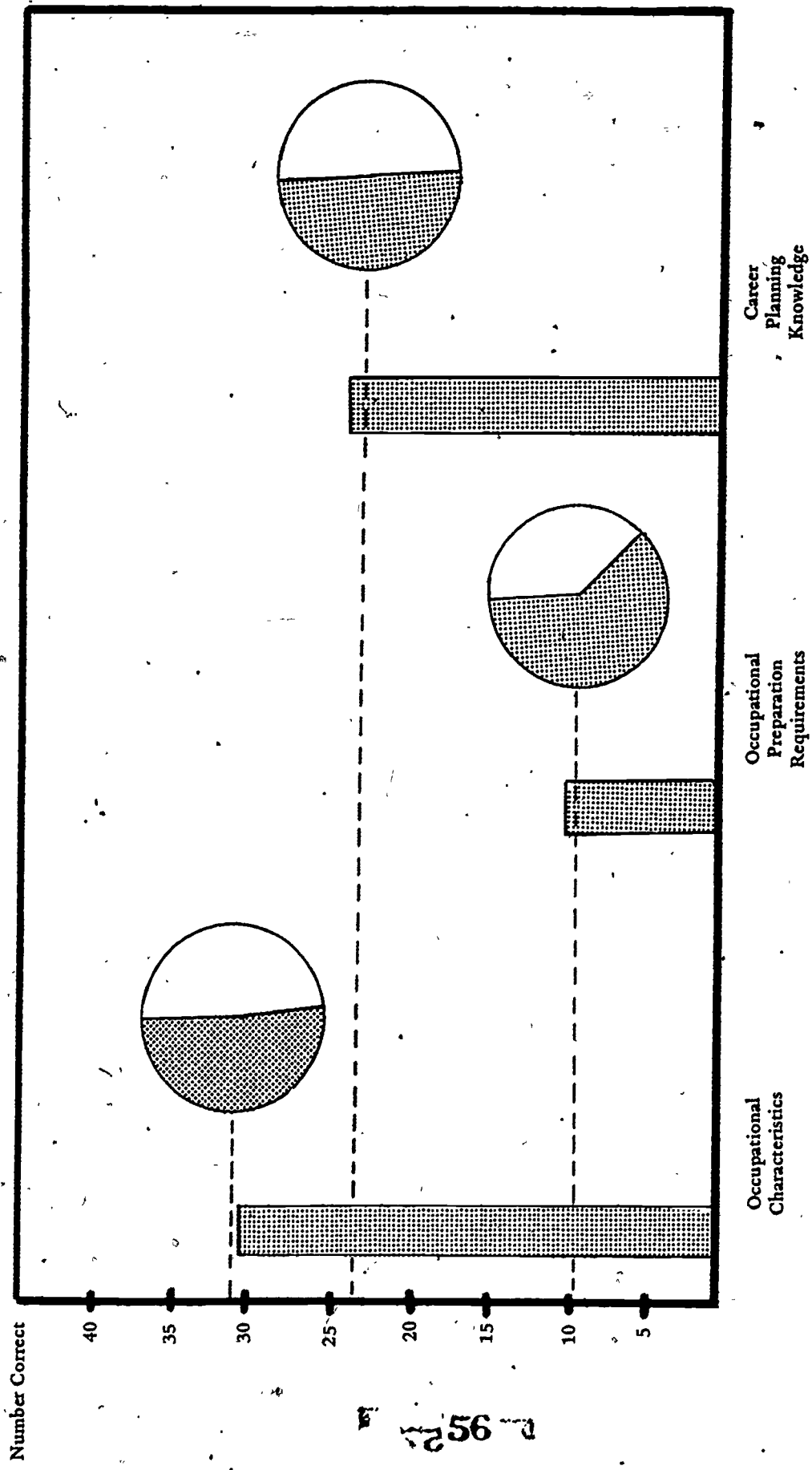


Figure 6

AVERAGE NUMBER CORRECT AND PERCENTAGE OF EIGHTH GRADE PUPILS MEETING THE CRITERION, STATEWIDE, FOR CAREER EDUCATION AREAS AS MEASURED BY THE ASSESSMENT OF CAREER DEVELOPMENT, FORM C



## ASSESSMENT RESULTS FOR EDUCATIONAL DEVELOPMENT DISTRICTS

Results for Kentucky pupils by Educational Development District are provided in the current section. Actual attainment levels in relation to expected attainment levels are presented for general skill areas and specific skills/concepts by goal area. Sample assessment items are provided for reference to each skill/concept area. Data tables indicating results for boys and girls separately are presented in Appendix E.

### GOAL AREA I: GENERAL EDUCATION

Goal 1.1: Each citizen of the Commonwealth should be assured an opportunity to realize his full potential in written and oral communication, reading, computation, and mathematical concepts.

The general education goal was assessed in the areas of (1) reading, (2) language, (3) arithmetic, and (4) study skills. The Comprehensive Tests of Basic Skills, Form Q, Level 3, were used. A criterion of 8.7 grade equivalency was established as the desired performance level. Analyses of pupil development for general skill areas and specific skills/concepts for Goal 1.1 are presented below. Item analysis results organized by skill/concept areas are provided in Appendix F.

Although no attempt was made to relate ability scores to achievement results, data indicating the average intelligence quotient scores for eighth grade sample pupils were compiled. These results, organized by Educational Development District and by boy/girl may be reviewed in Appendix E.

ReadingReading VocabularyPerformance Objective 1.1.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of vocabulary by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q; Level 3.

Sample Assessment Item for Knowledge of Vocabulary

Test Situation: Pupils were asked to choose the word which had about the same meaning as an underlined word.

Item: Stop the game.

- a. lose
- b. halt
- c. win
- d. start

Results

The average grade equivalent scores for knowledge of vocabulary and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 1 for each Educational Development District.

TABLE 1

**AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR KNOWLEDGE OF VOCABULARY**

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Vocabulary Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	259	8.2	41
2	552	7.5	27
3	261	7.7	34
4	562	7.4	32
5	590	8.0	43
6	249	7.8	37
7	507	8.0	40
8	1,264	8.8*	51
9	288	7.7	37
10	175	8.8*	54
11	306	7.2	28
12	484	7.1	28
13	659	6.9	24
14	353	7.1	24
15	561	8.0	42
16	176	8.3	43
Kentucky-- Statewide	7,246	7.8	38

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 1 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 24 percent to 51 percent.

Item analysis data, listed by reading vocabulary skills/concept for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Reading Vocabulary Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Knowledge of Reading VocabularyPerformance Objective 1.1.1.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of meaning of words in context by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of the Meaning of Words in Context

Test Situation: Pupils were asked to choose the word which had about the same meaning as an underlined word.

Item: Specific ideas

- a. small
- b. general
- c. strong
- d. precise

Results

The average level of items correct for knowledge of the meaning of words in context for each Educational Development District is provided in Table 2.

TABLE 2

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
KNOWLEDGE OF READING IN CONTEXT

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Vocabulary Subtest, Items #1 through #40

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	62
3	224	60
4	413	59
5	449	65
6	226	64
7	463	66
8	1,352	67
9	230	62
10	148	72*
11	62	67
12	518	51
13	686	52
14	300	56
15	421	67
16	176	70*
Kentucky--		
Statewide	6,102	63

\*Criterion average of 69 percent attained

### Conclusion

Results related to knowledge of the meaning of words in context which are presented in Table 2 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 51 percent to 72 percent. This range can be compared to an average expected criterion of 69 percent correct responses for the related items.

Item analysis data for performance objective 1.1.1.1 are provided in Appendix F.

Reading ComprehensionPerformance Objective 1.1.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate reading comprehension by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Reading Comprehension

Test Situation: Pupils were asked to read written material and choose the best answer to questions relating to that material.

Item: (An article about bees) A bee colony usually consists of:

- a. 20,000 insects.
- b. 60,000 insects.
- c. 12,000 insects.
- d. 42,000 insects.

Results

The average grade equivalent scores for reading comprehension and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 3 for each Educational Development District.

TABLE 3

**AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR READING COMPREHENSION**

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	259	8.4	46
2	552	7.5	34
3	261	8.1	42
4	563	7.2	29
5	591	8.0	41
6	249	7.8	36
7	507	7.8	37
8	1,269	8.6	49
9	289	7.8	38
10	175	8.9*	52
11	306	7.5	36
12	486	7.2	30
13	658	7.0	26
14	353	7.0	26
15	561	8.0	40
16	176	8.3	41
Kentucky-- Statewide	7,255	7.8	38

\*Criterion score of 8.7 attained

**Conclusion**

The assessment results presented in Table 3 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 26 percent to 52 percent.

Item analysis data, listed by reading comprehension skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Reading Comprehension Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Reading Comprehension

Performance Objective 1.1.2.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of words and phrases (simple rewording) by attaining an average level of correct answers equal to or exceeding the criterion (72 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Words and Phrases (Simple Rewording)

Test Situation: Pupils were asked to read written material and choose the best answer to questions requiring the rewording of the material.

Item: (An article about bees) The majority of bees in a colony are

- a. drones.
- b. workers.
- c. queens.
- d. kings.

Results

The average level of items correct for comprehension of words and phrases (simple rewording) for each Educational Development District is provided in Table 4.



TABLE 4

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF WORDS AND PHRASES (SIMPLE REWORDING)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 6, 8, 10, 19, 27, 29

Educational Development District	Number of pupils	Average Percentage of correct answers
1	175	65
2	261	66
3	224	68
4	413	64
5	449	70
6	226	68
7	463	69
8	1,352	67
9	230	65
10	148	72*
11	62	76*
12	518	58
13	686	59
14	300	62
15	421	70
16	176	70
Kentucky-- Statewide	6,102	67

\*Criterion average of 72 percent attained

### Conclusion

The assessment results presented in Table 4 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 58 percent to 76 percent. This range can be compared to an average expected criterion of 72 percent correct responses for items related to comprehension of words and phrases (simple rewording).

Item analysis data for performance objective 1.1.2.1 are provided in Appendix F.

Performance Objective 1.1.2.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (paraphrasing) of the meaning of ideas by attaining an average level of correct answers equal to or exceeding the criterion (71 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3:

Sample Assessment Item for Comprehension (Paraphrasing) of the Meaning of Ideas

Test Situation: Pupils were asked to read written material and choose the best answer to questions related to paraphrasing certain ideas in the material.

Item: (An article about bees) In this article, "eats ravenously" means about the same as:

- a. eats slowly.
- b. eats eagerly
- c. eats roughly.
- d. eats happily.

Results

The average level of items correct for comprehension (paraphrasing) of the meaning of ideas for each Educational Development District is provided in Table 5.

TABLE 5

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION (PARAPHRASING) OF THE MEANING OF IDEAS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 5, 12-14, 24, 36, 42-44

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	63
3	224	64
4	413	59
5	449	68
6	226	64
7	463	66
8	1,352	65
9	230	63
10	148	74*
11	62	70
12	518	54
13	686	55
14	300	57
15	421	68
16	176	69
Kentucky-- Statewide	6,102	64

\*Criterion average of 71 percent attained

### Conclusion

Results related to comprehension of the meaning of ideas which are presented in Table 5 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 54 percent to 74 percent. This range can be compared to an average expected criterion of 71 percent correct responses for the related items.

Item analysis data for performance objective 1.2.2 are provided in Appendix F.

Performance Objective 1.1.2.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of main ideas by attaining an average level of correct answers equal to or exceeding the criterion (65 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Main Ideas

Test Situation: Pupils were asked to read written material and choose the correct answer to questions which required them to find the main idea in the material.

Item: (An article about bees) The main point of this article is to explain:

- a. life in a bee colony.
- b. how bees make honey.
- c. the life span of a bee.
- d. what bees eat.

Results

The average level of items correct for comprehension of main ideas for each Educational Development District is provided in Table 6.

TABLE 6

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF MAIN IDEAS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 2, 11, 20, 26, 34, 38, 45

Educational Development District	Number of pupils	Average percentage of Correct answers
1	175	57
2	261	53
3	224	54
4	413	51
5	449	56
6	226	55
7	463	55
8	1,352	55
9	230	56
10	148	62
11	62	59
12	518	49
13	686	47
14	300	49
15	421	59
16	176	58
Kentucky-- Statewide	6,102	55

\*Criterion average of 65 percent attained.

### Conclusion

The assessment results presented in Table 6 indicate the existence of learner needs in sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 47 percent to 62 percent. This range can be compared to an average expected criterion of 65 percent correct responses for items related to comprehension of the main ideas.

Item analysis data for performance objective 1.1.2.3 are provided in Appendix F.

Performance Objective 1.1.2.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships by attaining an average level of correct answers equal to or exceeding the criterion (63 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Relationships

Test Situation: Pupils were asked to read written material and choose the correct answer to questions concerning relationships in the material.

Item: (An article about bees) According to this article, the most important insect in the colony is the:

- a. queen.
- b. drone.
- c. worker.
- d. nurse bee.

Results

The average level of items correct for comprehension of relationships for each Educational Development District is provided in Table 7.

TABLE 7

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF RELATIONSHIPS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 9, 21, 35, 37, 39-41

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	60
2	261	56
3	224	59
4	413	54
5	449	60
6	226	58
7	463	59
8	1,352	60
9	230	61
10	148	64*
11	62	64*
12	518	50
13	686	51
14	300	50
15	421	61
16	176	64*
Kentucky-- Statewide	6,102	58

\*Criterion average of 63 percent attained

### Conclusion

The assessment results presented in Table 7 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 50 percent to 64 percent. This range can be compared to an average expected criterion of 63 percent correct responses for items related to comprehension of relationships.

Item analysis data for performance objective 1.1.2.4 are provided in Appendix F.

Performance Objective 1.1.2.5

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (draw conclusions) of given facts and statements by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension (Draw Conclusions) of Given Facts and Statements

Test Situation: Pupils were asked to read written material and choose the correct response to questions requiring them to draw conclusions from given facts and statements.

Item: (An article about bees) This bee colony must be located in:

- a. a crack in a barn wall.
- b. a hollow in a tree.
- c. the stem of the flower.
- d. the attic of a house.

Results

The average level of items correct for comprehension (draw conclusions) of given facts and statements for each Educational Development District is provided in Table 8.



TABLE 8

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION (DRAW CONCLUSIONS) OF  
GIVEN FACTS AND STATEMENTS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 16-18, 28, 33

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	65
2	261	68
3	224	66
4	413	62
5	449	67
6	226	66
7	463	66
8	1,352	67
9	230	64
10	148	72
11	62	72
12	518	53
13	686	56
14	300	60
15	421	67
16	176	70*
Kentucky-- Statewide	6,102	65

\*Criterion average of 69 percent attained

### Conclusion

Results related to comprehension of given facts and statements which are presented in Table 8 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 53 percent to 70 percent. This range can be compared to an average expected criterion of 69 percent correct responses for the related items.

Item analysis data for performance objective 1.1.2.5 are provided in Appendix F.

Performance Objective 1.1.2.6

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (inference) of contextual clues by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension (Inference) of Contextual Clues

**Test Situation:** Pupils were asked to read written material and choose the correct answer for questions which required making inferences from contextual clues.

**Item:** (An article about bees) A bee colony would not exist for long without:

- a. drones and workers.
- b. workers.
- c. a queen and drones.
- d. kings and queens.

Results

The average level of items correct for comprehension (inference) of contextual clues for each Educational Development District is provided in Table 9.

TABLE 9

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION (INFERENCE) OF CONTEXTUAL CLUES

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 1, 3, 22, 23, 30, 32

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	63
3	224	62
4	413	59
5	449	67
6	226	66
7	463	63
8	1,352	66
9	230	63
10	148	71*
11	62	66
12	518	53
13	686	55
14	300	59
15	421	64
16	176	69*
Kentucky-- Statewide	6,102	63

\*Criterion average of 69 percent attained

### Conclusion

The assessment results presented in Table 9 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development Districts ranged from 53 percent to 71 percent. This range can be compared to an average expected criterion of 69 percent correct responses for items related to comprehension of contextual clues.

Item analysis data for performance objective 1.1.2.6 are provided in Appendix F.

Performance Objective 1.1.2.7

During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of indefinite or incomplete statements (extended meaning) by attaining an average level of correct answers equal to or exceeding the criterion (68 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Analysis of Indefinite or Incomplete Statements (Extended Meaning)

Test Situation: Pupils were asked to read written material and choose the correct answer to questions which extended the meaning of statements in the material.

Item: (An article about bees) This article gives the impression that bees are:

- a. very industrious.
- b. very lazy.
- c. very careful.
- d. very happy.

Results

The average level of items correct for analysis of indefinite or incomplete statements (extended meaning) for each Educational Development District is provided in Table 10.

TABLE 10

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
ANALYSIS OF INDEFINITE OR INCOMPLETE STATEMENTS  
(EXTENDED MEANING)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest, Item Numbers 4, 7, 15, 25, 31

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	62
3	224	65
4	413	58
5	449	63
6	226	63
7	463	63
8	1,352	64
9	230	63
10	148	71*
11	62	66
12	518	53
13	686	55
14	300	57
15	421	66
16	176	66
Kentucky-- Statewide	6,102	62

\*Criterion average of 68 percent attained

### Conclusion

Results related to analysis of indefinite or incomplete statements which are presented in Table 10 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 53 percent to 71 percent. This range can be compared to an average expected criterion of 68 percent correct responses for the related items.

Item analysis data for performance objective 1.1.2.7 are provided in Appendix F.

LanguageSpellingPerformance Objective 1.1.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of spelling by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language/Spelling Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Spelling

Test Situation: Pupils were asked to choose from a group of words the word which was spelled incorrectly. If all the words were spelled correctly, "none" was marked.

- Item: a. slim  
b. horse  
c. automobile  
d. spelling  
e. none

Results

The average grade equivalent scores for knowledge of spelling and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 11 for each Educational Development District.

TABLE 11

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR KNOWLEDGE OF SPELLING

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language/Spelling Subtest

Educational Development District	Number of pupils	Average grade equivalent scores	Percentage of pupils meeting the criterion
1	258	8.2	42
2	551	7.6	33
3	262	8.4	46
4	558	7.7	34
5	592	8.3	44
6	249	8.0	38
7	507	8.2	39
8	1,271	8.7*	49
9	287	8.0	37
10	175	9.0*	52
11	305	7.7	35
12	486	7.6	35
13	657	7.2	30
14	352	7.3	30
15	560	8.3	42
16	78	8.4	46
Kentucky-- Statewide	7,148	8.0	40

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 11 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 30 percent to 52 percent.

Item analysis data, listed by language/spelling skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Language/Spelling Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Knowledge of SpellingPerformance Objective 1.1.3.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of correctly and incorrectly spelled words by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language/Spelling Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Correctly and Incorrectly Spelled Words

Test Situation: Pupils were asked to choose from a group of words the word which was spelled incorrectly. If all the words were spelled correctly, "none" was marked.

- Item: a. dishes  
b. silver  
c. picture  
d. glasses  
e. none

Results

The average level of items correct for knowledge of correctly and incorrectly spelled words for each Educational Development District is provided in Table 12.



TABLE 12

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
KNOWLEDGE OF CORRECTLY AND INCORRECTLY SPELLED WORDS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language/Spelling Subtest, Item Numbers 1 through 30

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	63
2	261	61
3	224	67
4	413	60
5	449	67
6	226	65
7	463	66
8	1,352	65
9	230	62
10	148	71*
11	62	65
12	518	54
13	686	54
14	300	58
15	421	66
16	176	44
Kentucky-- Statewide	6,102	62

\*Criterion average of 70 percent attained

### Conclusion

The assessment results presented in Table 12 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 44 percent to 71 percent. This range can be compared to an average expected criterion of 70 percent correct responses for items related to knowledge of correctly and incorrectly spelled words.

Item analysis data for performance objective 1.1.3.1 are provided in Appendix F.

## Mechanics of Language

### Performance Objective 1.1.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of the mechanics of language by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Item for Application of the Mechanics of Language

Test Situation: Pupils were asked to choose the answer which used the best punctuation for an underlined part in a sentence. "Best as it is" was chosen if the underlined part was punctuated correctly.

Item: She likes dolls - books, and animals.

- a. dolls. books
- b. dolls, books
- c. dolls; books
- d. best as it is

Test Situation: Pupils were also asked to find the mistakes in capitalization in underlined parts of sentences. "None" was marked if there were no mistakes in capitalization.

Item: Bob has four Friends named Jim, John, Tom and Bill. None.

- a.
- b.
- c.
- d.
- e.

### Results

The average grade equivalent scores for application of the mechanics of language and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 13 for each Educational Development District.

TABLE 13

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR APPLICATION OF  
THE MECHANICS OF LANGUAGE

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Mechanics Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criteria
1	258	8.2	39
2	553	7.5	32
3	262	8.1	44
4	558	7.8	38
5	591	8.4	46
6	249	8.0	40
7	507	8.1	39
8	1,267	8.4	49
9	288	8.4	47
10	175	9.2*	56
11	306	7.8	34
12	484	7.5	35
13	662	7.3	29
14	353	7.7	35
15	562	8.3	43
16	79	8.8*	58
Kentucky-- Statewide	7,154	8.0	40

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 13 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 29 percent to 58 percent.

Item analysis data, listed by language mechanics skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Language Mechanics Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Application of the Mechanics of LanguagePerformance Objective 1.1.4.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of punctuation skills by attaining an average level of correct answers equal to or exceeding the criterion (74 percent) as measured by the related items of the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Punctuation Skills

Test Situation: Pupils were asked to choose the answer which uses the best punctuation for an underlined part in a sentence. "Best as it is" was chosen if the underlined part was punctuated correctly.

Item: He has marbles - tops, and guns.

- a. marbles: tops
- b. marbles, tops
- c. marbles; tops
- d. best as it is

Results

The average level of items correct for application of punctuation skills for each Educational Development District is provided in Table 14.

TABLE 14

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF PUNCTUATION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Mechanics Subtest, Item Numbers 1 through 13

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	67
2	261	68
3	224	68
4	413	67
5	449	71
6	226	71
7	463	70
8	1,352	69
9	230	71
10	148	77*
11	62	75*
12	518	60
13	686	63
14	300	66
15	421	73
16	176	51
Kentucky-- Statewide	6,102	68

\*Criterion average of 74 percent attained

### Conclusion

The assessment results presented in Table 14 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 51 percent to 75 percent. This range can be compared to an average expected criterion of 74 percent correct responses for items related to application of punctuation skills.

Item analysis data for performance objective 1.1.4.1 are provided in Appendix F.

Performance Objective 1.1.4.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of capitalization skills by attaining an average level of correct answers equal to or exceeding the criterion (61 percent) as measured by the related items of the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Capitalization Skills

Test Situation: Pupils were asked to find the mistakes in capitalization in underlined parts of sentences. "None" was marked if there were no mistakes in capitalization.

Item: Susan wanted to see the Movie called Jake. None.  
           a.               b.               c.               d.               e.

Results

The average level of items correct for application of capitalization skills for each Educational Development District is provided in Table 15.

TABLE 15

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF CAPITALIZATION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Mechanics Subtest, Item Numbers 14-25

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	57
2	261	54
3	224	61*
4	413	57
5	449	63*
6	226	58
7	463	61*
8	1,352	57
9	230	64*
10	148	67*
11	62	61*
12	518	49
13	686	51
14	300	57
15	421	62*
16	176	43
Kentucky-- Statewide	6,102	58

\*Criterion average of 61 percent attained

### Conclusion

Results related to application of capitalization which are presented in Table 15 indicate the existence of learner needs in nine of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 43 percent to 67 percent. This range can be compared to an average expected criterion of 61 percent correct responses for the related items.

Item analysis data for performance objective 1.1.4.2 are provided in Appendix F.

Language ExpressionPerformance Objective 1.1.5

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of language expression by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Language Expression

Test Situation: Pupils were asked to choose the word or words to fill a blank in a sentence which best expressed the idea presented.

Item: The happy boys \_\_\_\_\_ down the street.

- a. stalked
- b. moved
- c. skipped
- d. calmly walked

Results

The average grade equivalent scores for application of language expression and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 16 for each Educational Development District.



TABLE 16

**AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR APPLICATION OF LANGUAGE EXPRESSION**

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Expression Subtest

<b>Educational Development District</b>	<b>Number of pupils</b>	<b>Average grade equivalent score</b>	<b>Percentage of pupils meeting the criterion</b>
1	257	8.3	44
2	553	7.4	32
3	262	8.1	43
4	559	7.3	33
5	589	8.0	41
6	249	7.7	39
7	507	8.0	43
8	1,267	8.7*	50
9	288	7.9	40
10	175	9.3*	59
11	305	7.7	34
12	486	7.5	34
13	657	7.0	27
14	352	7.2	29
15	562	8.1	42
16	78	8.4	48
<hr/>			
Kentucky-- statewide	7,146	7.9	39

\*Criterion score of 8.7 attained

**Conclusion**

The assessment results presented in Table 16 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 27 percent to 59 percent.

Item analysis data, listed by language expression skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Language Expression Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Application of Language ExpressionPerformance Objective 1.1.5.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of correct grammatical usage by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Correct Grammatical Usage

Test Situation: Pupils were asked to choose the correct grammatical form of words to fill in the blanks in sentences.

Item: Jane folded her clothes \_\_\_\_\_.

- a. careful.
- b. carefully.
- c. good.
- d. goodly.

Results

The average level of items correct for application of correct grammatical usage for each Educational Development District is provided in Table 17.

TABLE 17

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF CORRECT GRAMMATICAL USAGE

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Expressions Subtest, Item Numbers 26-35

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	63
3	224	63
4	413	60
5	449	64
6	226	66
7	463	64
8	1,352	62
9	230	62
10	148	70*
11	62	70*
12	518	54
13	686	55
14	300	59
15	421	65
16	176	43
Kentucky-- Statewide	6,102	62

\*Criterion average of 70 percent attained

### Conclusion

The assessment results presented in Table 17 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 43 percent to 70 percent. This range can be compared to an average expected criterion of 70 percent correct responses for items related to application of correct grammatical usage.

Item analysis data for performance objective 1.1.5.1 are provided in Appendix F.

Performance Objective 1.1.5.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of clarity and/or economy of expression by attaining an average level of correct answers equal to or exceeding the criterion (52 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Clarity and/or Economy of Expression

Test Situation: Pupils were asked to choose the phrase which expressed the underlined idea in the clearest and simplest way. "Best as it is" was selected if the idea was stated best in the sentence.

Item: The cat proved to me that he was very smart and could sneak away from anyone.

- a. so smart
- b. quick and funny
- c. clever and sly
- d. slow and lazy

Results

The average level of items correct for comprehension of clarity and/or economy of expression for each Educational Development District is provided in Table 18.

TABLE 18

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF CLARITY AND OR ECONOMY OF EXPRESSION

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Expression Subtest, Item Numbers 46-55

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	46
2	261	46
3	224	47
4	413	43
5	449	48
6	226	45
7	463	48
8	1,352	47
9	230	46
10	148	53*
11	62	54*
12	518	41
13	686	39
14	300	41
15	421	46
16	176	32
Kentucky-- Statewide	6,102	45

\*Criterion average of 52 percent attained

### Conclusion

Results related to comprehension of clarity and/or economy of expression which are presented in Table 18 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 39 percent to 54 percent. This range can be compared to an average expected criterion of 52 percent correct responses for the related items.

Item analysis data for performance objective 1.1.5.2 are provided in Appendix F.

Performance Objective 1.1.5.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of the author's intention (word choice) by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of the Author's Intention (Word Choice)

Test Situation: Pupils were asked to choose the word or words to fill in blanks in sentences which best express the intentions of the author.

Item: The wounded duck \_\_\_\_\_ across the stream.

- a. leaped
- b. ran
- c. walked briskly
- d. stepped slowly

Results

The average level of items correct for comprehension of the author's intention (word choice) for each Educational Development District is provided in Table 19.

TABLE 19

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF THE AUTHOR'S INTENTION (WORD CHOICE)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Expression Subtest, Item Numbers 36-45

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	60
2	261	63
3	224	66
4	413	56
5	449	61
6	226	62
7	463	64
8	1,352	65
9	230	64
10	148	73*
11	62	69
12	518	54
13	686	52
14	300	55
15	421	67
16	176	46
Kentucky-- Statewide	6,102	61

\*Criterion average of 70 percent attained

### Conclusion

The assessment results presented in Table 19 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 46 percent to 73 percent. This range can be compared to an average expected criterion of 70 percent correct responses for items related to comprehension of the author's intention.

Item analysis data for performance objective 1.1.5.3 are provided in Appendix F.

ArithmeticArithmetic ComputationPerformance Objective 1.1.6

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of arithmetic computation by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Arithmetic Computation

Test Situation: Pupils were asked to choose correct answers to problems of addition, subtraction, multiplication, and division.

Item: 120    a. 458  
       $\times 7$     b. 847  
              c. 727  
              d. 840

Results

The average grade equivalent scores for application of arithmetic computation and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 20 for each Educational Development District.



TABLE 20

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR APPLICATION OF  
ARITHMETIC COMPUTATION

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	241	8.4	46
2	553	7.7	35
3	261	7.9	39
4	553	7.6	33
5	588	8.4	44
6	245	7.8	36
7	509	8.0	38
8	1,284	8.1	39
9	287	8.1	39
10	171	8.2	43
11	306	7.7	34
12	485	7.6	34
13	657	7.4	30
14	351	7.2	29
15	559	8.1	40
16	176	8.7*	49
Kentucky-- Statewide	7,226	7.9	37

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 20 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 29 percent to 49 percent.

Item analysis data, listed by arithmetic computation skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Arithmetic Computation Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Application of Arithmetic Computation

Performance Objective 1.1.6.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of addition skills by attaining an average level of correct answers equal to or exceeding the criterion (75 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Addition Skills

Test Situation: Pupils were asked to choose the correct answer for problems of addition.

Item:	12.22	a.	46.46
	17.45	b.	64.74
	16.20	c.	46.47
	<u>+ .60</u>	d.	47.47

Results

The average level of items correct for application of addition skills for each Educational Development District is provided in Table 21.

TABLE 2I

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF ADDITION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest, Item Numbers 1-4, 17-20, 33-36

Educational Development District	Number of pupils	Average-percentage of correct answers
1	175	67
2	261	69
3	224	66
4	413	66
5	449	73
6	226	68
7	463	70
8	1,352	69
9	230	71
10	148	71
11	62	68
12	518	59
13	686	59
14	300	61
15	421	74
16	176	78*
Kentucky-- Statewide	6,102	68

\*Criterion average of 75 percent attained

### Conclusion

The assessment results presented in Table 21 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 59 percent to 78 percent. This range can be compared to an average expected criterion of 75 percent correct responses for items related to application of addition.

Item analysis data for performance objective 1.1.6.1 are provided in Appendix F.

Performance Objective 1.1.6.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of subtraction skills by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Subtraction Skills

Test Situation: Pupils were asked to choose the correct answer to problems of subtraction.

Item: 24.12	a. 11.88
-12.24	b. 36.36
	c. 11.02
	d. 1.16

Results

The average level of items correct for application of subtraction skills for each Educational Development District is provided in Table 22.

101  
100

TABLE 22 .

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF SUBTRACTION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest, Item Numbers 5-8, 21-24, 37-40

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	62
3	224	62
4	413	58
5	449	67
6	226	63
7	463	65
8	1,352	62
9	230	64
10	148	66
11	62	67
12	518	54
13	686	55
14	300	58
15	421	69
16	176	74*
Kentucky-- Statewide	6,102	63

\*Criterion average of 70 percent attained

### Conclusion

Results related to application of subtraction skills which are presented in Table 22 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 54 percent to 74 percent. This range can be compared to an average expected criterion of 70 percent correct responses for the related items.

Item analysis data for performance objective 1.1.6.2 are provided in Appendix F.

Performance Objective 1.1.6.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of multiplication skills by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Multiplication Skills

Test Situation: Pupils were asked to choose the correct answer to problems of multiplication.

Item: 750	a. 14,100
<u>x 18</u>	b. 6,750
	c. 13,500
	d. 18,200

Results

The average level of items correct for application of multiplication skills for each Educational Development District is provided in Table 23.

TABLE 23

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF MULTIPLICATION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest, Item Numbers 9-12, 25-28, 41-44

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	70
2	261	69
3	224	66
4	413	66
5	449	74*
6	226	66
7	463	71
8	1,352	66
9	230	72
10	148	71
11	62	70
12	518	61
13	686	62
14	300	65
15	421	74*
16	176	79*
Kentucky-- Statewide	6,102	69

\*Criterion average of 73 percent attained

### Conclusion

The assessment results presented in Table 23 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 61 percent to 79 percent. This range can be compared to an average expected criterion of 73 percent correct responses for items related to application of multiplication.

Item analysis data for performance objective 1.1.6.3 are provided in Appendix F.

Performance Objective 1.1.6.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of division skills by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Division Skills

Test Situation: Pupils were asked to choose the correct answer to problems of division.

- Item: 24 ~~7~~4848
- a. 2002
  - b. 202
  - c. 22
  - d. 222

Results

The average level of items correct for application of division skills for each Educational Development District is provided in Table 24.



TABLE 24

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
APPLICATION OF DIVISION SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest, Item Numbers 13-16, 29-32, 45-48

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	69
2	261	68
3	224	68
4	413	63
5	449	73
6	226	66
7	463	70
8	1,352	66
9	230	72
10	148	69
11	62	66
12	518	59
13	686	60
14	300	63
15	421	74*
16	176	76*
Kentucky-- Statewide	6,102	68

\*Criterion average of 73 percent attained

### Conclusion

Results related to application of division which are presented in Table 24 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 59 percent to 76 percent. This range can be compared to an average expected criterion of 73 percent correct responses for the related items.

Item analysis data for performance objective 1.1.6.4 are provided in Appendix F.

Arithmetic ConceptsPerformance Objective 1.1.7

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of arithmetic concepts by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Arithmetic Concepts

Test Situation: Pupils were asked to choose the correct answer to questions relating to various arithmetic concepts.

Item: Seven multiplied by seven ~~is~~ the same as:

- a.  $\sqrt{7}$
- b.  $7 \cdot 7 \cdot 7$
- c.  $7 \div 7$
- d.  $7^2$

Results

The average grade equivalent scores for comprehension of arithmetic concepts and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 25 for each Educational Development District.

TABLE 25

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR COMPREHENSION OF  
ARITHMETIC CONCEPTS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	241	8.6	48
2	553	7.6	35
3	261	8.3	44
4	552	7.8	37
5	589	8.6	51
6	247	7.9	40
7	509	8.1	42
8	1,265	8.7*	51
9	287	7.8	41
10	175	9.0*	56
11	305	7.6	34
12	484	7.6	37
13	652	7.5	31
14	352	7.4	32
15	559	8.2	44
16	176	8.3	40
Kentucky-- Statewide	7,207	8.1	42

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 25 indicate the existence of learner needs in fourteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 31 percent to 56 percent.

Item analysis data, listed by arithmetic concepts skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Arithmetic Concepts Subtest by Educational Development District are presented in Appendix E.

Specific Skills and Concepts Related to Comprehension of Arithmetic Concepts

Performance Objective 1.1.7.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of arithmetic concepts by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Arithmetic Concepts

Test Situation: Pupils were asked to choose the correct answer to questions related to specific arithmetic concepts.

Item: Which number, when divided by 4, has no remainder?

- a. 823
- b. 629
- c. 2424
- d. 1677

Results

The average level of items correct for knowledge of arithmetic concepts for each Educational Development District is provided in Table 26.

TABLE 26

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
KNOWLEDGE OF ARITHMETIC CONCEPTS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest, Item Numbers 2, 5, 10, 17, 21, 24

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	70
2	261	70
3	224	68
4	413	65
5	449	72
6	226	68
7	463	70
8	1,352	69
9	230	66
10	148	79*
11	62	69
12	518	59
13	686	60
14	300	64
15	421	73*
16	176	74*
Kentucky-- Statewide	6,102	69

\*Criterion average of 73 percent attained

### Conclusion

The assessment results presented in Table 26 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 59 percent to 79 percent. This range can be compared to an average expected criterion of 73 percent correct responses for items related to arithmetic concepts.

Item analysis data for performance objective 1.1.7.1 are provided in Appendix F.

Performance Objective 1.1.7.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of arithmetic concepts (converting form) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Arithmetic Concepts (Converting Form)

Test Situation: Pupils were asked to choose the correct answers to questions related to converting the form of numbers given.

Item: How is .427 written in the form of a fraction?

a.  $\frac{427}{100}$

c.  $\frac{427}{1000}$

b.  $\frac{4.27}{100}$

d.  $\frac{427}{10}$

Results

The average level of items correct for comprehension of arithmetic concepts (converting form) for each Educational Development District is provided in Table 27.

TABLE 27

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF ARITHMETIC CONCEPTS (CONVERTING FORM)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest, Item Numbers 1, 16, 19, 23, 25, 27, 28, 30

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	65
2	261	64
3	224	66
4	413	62
5	449	69*
6	226	64
7	463	67
8	1,352	67
9	230	62
10	148	74 *
11	62	63
12	518	53
13	686	55
14	300	62
* 15	421	69*
16	176	69*
Kentucky-- Statewide	6,102	64

\*Criterion average of 69 percent attained

### Conclusion

The assessment results presented in Table 27 indicate the existence of learner needs in twelve of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 53 percent to 74 percent. This range can be compared to an average expected criterion of 69 percent correct responses for items related to comprehension of arithmetic concepts (converting form).

Item analysis data for performance objective 1.1.7.2 are provided in Appendix F.

Performance Objective 1.1.7.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of equations by attaining an average level of correct answers equal to or exceeding the criterion (77 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Equations

Test Situation: Pupils were asked to choose the correct solution to arithmetic equations.

Item: Solve for "x" in  $\frac{x}{4} = 4$ .

- a. 4
- b. 16
- c. 8
- d. 18

Results

The average level of items correct for comprehension of equations for each Educational Development District is provided in Table 28.



TABLE 28

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF EQUATIONS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest, Item Numbers 3, 8, 18

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	74
2	261	78*
3	224	78*
4	413	75
5	449	81*
6	226	75
7	463	79*
8	1,352	77*
9	230	78*
10	148	89*
11	62	83*
12	518	66
13	686	67
14	300	72
15	421	81*
16	176	86*
Kentucky-- Statewide	6,102	78*

\*Criterion average of 77 percent attained

### Conclusion

Results related to comprehension of equations which are presented in Table 28 indicate the existence of learner needs in five of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 66 percent to 89 percent. This range can be compared to an average expected criterion of 77 percent correct responses for the related items.

Item analysis data for performance objective 1.1.7.3 are provided in Appendix F.

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Performance Objective 1.1.7.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of comparative relationships by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Comparative Relationships

Test Situation: Pupils were asked to choose the correct answer to arithmetic problems dealing with comparative relationships.

Item: Which has the greatest value?

a.  $\frac{1}{6}$

b.  $\frac{1}{8}$

c. 68%

d. 48%

Results

The average level of items correct for comprehension of comparative relationships for each Educational Development District is provided in Table 29.

TABLE 29

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF COMPARATIVE RELATIONSHIPS

Comprehensive Test of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest, Item Numbers 4, 13, 20, 22

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	62
2	261	64
3	224	68
4	413	62
5	449	66
6	226	64
7	463	66
8	1,352	65
9	230	65
10	148	71
11	62	65
12	518	58
13	686	58
14	300	62
15	421	68
16	176	63
Kentucky-- Statewide	6,102	64

\*Criterion average of 73 percent attained

### Conclusion

The assessment results presented in Table 29 indicate the existence of learner needs in sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 58 percent to 71 percent. This range can be compared to an average expected criterion of 73 percent correct responses for items related to comprehension of comparative relationships.

Item analysis data for performance objective 1.1.7.4 are provided in Appendix F.

Performance Objective 1.1.7.5

During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of the components of arithmetic problems (organization) by attaining an average level of correct answers equal to or exceeding the criterion (68 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Analysis of the Components of Arithmetic Problems (Organization)

Test Situation: Pupils were asked to choose the correct answer to arithmetic problems relating to organization.

Item: Which of these is closest to 2 hours and 20 minutes?

- a. 130 minutes
- b. 145 minutes
- c. 125 minutes
- d. 150 minutes

Results

The average level of items correct for analysis of the components of arithmetic problems (organization) for each Educational Development District is provided in Table 30.

TABLE 30

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
ANALYSIS OF THE COMPONENTS OF ARITHMETIC PROBLEMS  
(ORGANIZATION)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest, Item Numbers 6, 7, 9, 11, 12, 14, 15, 26, 29.

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	61
2	261	62
3	224	62
4	413	61
5	449	65
6	226	65
7	463	68*
8	1,352	67
9	230	64
10	148	72*
11	62	67
12	518	54
13	686	57
14	300	60
15	421	67
16	176	70*
Kentucky-- Statewide	6,102	63

\*Criterion average of 68 percent attained

### Conclusion

Results related to analysis of the components of arithmetic problems which are presented in Table 30 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 57 percent to 72 percent. This range can be compared to an average expected criterion of 68 percent correct responses for the related items.

Item analysis data for performance objective 1.1.7.5 are provided in Appendix F.

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Arithmetic ApplicationsPerformance Objective 1.1.8

During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of skills in solving arithmetic word problems by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Application of Skills in Solving Arithmetic Word Problems

Test Situation: Pupils were asked to solve arithmetic word problems and choose the correct solution to these problems.

Item: John has a board 120 inches long. How long is John's board in feet?

- a. 6 feet
- b. 1200 feet
- c. 12 feet
- d. 10 feet

Results

The average grade equivalent scores for application of skills in solving arithmetic word problems and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 31 for each Educational Development District.

TABLE 31

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR APPLICATION OF SKILLS IN SOLVING  
ARITHMETIC WORD PROBLEMS

Comprehensive Test of Basic Skills, Form Q, Level 3  
Arithmetic Application Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	241	8.1	44
2	553	7.4	33
3	261	7.7	39
4	550	7.4	33
5	589	8.2	47
6	246	7.4	33
7	508	7.8	40
8	1,269	8.3	47
9	286	7.6	38
10	171	7.9	40
11	304	7.2	26
12	485	7.3	32
13	652	7.1	26
14	352	7.1	28
15	560	8.0	42
16	176	7.9	38
Kentucky--			
Statewide	7,203	7.7	37

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 31 indicate the existence of learner needs in sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 26 percent to 47 percent.

Item analysis data, listed by arithmetic applications skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Arithmetic Application Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Application of Skills in Solving Arithmetic Word Problems

Performance Objective 1.1:8.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships (ratio, time, part-whole, sequence, geometric) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Relationships (Ratio, Time, Part-Whole, Sequence, Geometric)

Test Situation: Pupils were asked to choose the correct answer to arithmetic word problems relating to ratio, time, part-whole, sequence, and geometry.

Item: Jane has \$25.00. Dick has \$75.00. What is the ratio of Jane's money to Dick's?

- a.  $\frac{1}{25}$    b.  $\frac{1}{3}$    c.  $\frac{1}{4}$    d.  $\frac{1}{2}$

Results

The average level of items correct for comprehension of relationships (ratio, time, part-whole, sequence, geometric) for each Educational Development District is provided in Table 32.



TABLE 32

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF RELATIONSHIPS  
(RATIO; TIME, PART-WHOLE, SEQUENCE, GEOMETRIC)

Comprehensive Test of Basic Skills, Form Q, Level 3  
Arithmetic Applications Subtest, Item Numbers 33-35, 38-40

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	54
2	261	59
3	224	61
4	413	55
5	449	63
6	226	59
7	463	63
8	1,352	62
9	230	62
10	148	64
11	62	66
12	518	53
13	686	52
14	300	57
15	421	66
16	176	65
Kentucky-- Statewide	6,102	60

\*Criterion average of 69 percent attained

### Conclusion

The assessment results presented in Table 32 indicate the existence of learner needs in sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 52 percent to 66 percent. This range can be compared to an average expected criterion of 69 percent correct responses for items related to comprehension of relationships.

Item analysis data for performance objective 1.1.8.1 are provided in Appendix F.

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Performance Objective 1.1.8.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of problem-solving (selecting methods) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Problem-Solving (Selecting Methods)

Test Situation: Pupils were asked to choose the correct method for solving arithmetic word problems.

Item: Five girls were 42, 40, 48, 44, and 41 inches tall. To find the average height, you will:

- a. add the heights and add 5.
- b. add the heights and multiply by 5.
- c. add the heights and divide by 5.
- d. multiply 40 by 5.

Results

The average level of items correct for comprehension of problem-solving (selecting methods) for each Educational Development District is provided in Table 33.

TABLE 33

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF PROBLEM-SOLVING (SELECTING METHODS)

Comprehensive Test of Basic Skills, Form Q, Level 3  
Arithmetic Application Subtest, Item Numbers 37, 43, 45, 50

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	61
2	261	60
3	224	60
4	413	59
5	449	61
6	226	62
7	463	63
8	1,352	62
9	230	58
10	148	63
11	62	65
12	518	53
13	686	54
14	300	55
15	421	66
16	176	68
Kentucky-- Statewide	6,102	60

\*Criterion average of 69 percent attained

### Conclusion

Results related to comprehension of problem-solving (selecting methods) presented in Table 33 indicate the existence of learner needs in sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 53 percent to 68 percent. This range can be compared to an average expected criterion of 69 percent correct responses for the related items.

Item analysis data for performance objective 1.1.8.2 are provided in Appendix F.

Performance Objective 1.1.8.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of problem-solving (correct solution) by attaining an average level of correct answers equal to or exceeding the criterion (74 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Problem-Solving (Correct Solution)

Test Situation: Pupils were asked to choose the correct solution to arithmetic word problems.

Item: Sam has  $\frac{2}{6}$  of a cake and Dick has  $\frac{2}{3}$  of a cake. How much of the cake do the two boys have?

- a.  $\frac{3}{3}$
- b.  $\frac{1}{8}$
- c.  $\frac{4}{16}$
- d.  $\frac{1}{2}$

Results

The average level of items correct for comprehension of problem-solving (correct solution) for each Educational Development District is provided in Table 34.

TABLE 34

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF PROBLEM-SOLVING (CORRECT SOLUTION)

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Application Subtest, Item Numbers 31, 32, 36, 42, 46, 48

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	64
2	261	68
3	224	65
4	413	64
5	449	71
6	226	65
7	463	69
8	1,352	70
9	230	66
10	148	67
11	62	72
12	518	58
13	686	59
14	300	60
15	421	73
16	176	74*
Kentucky-- Statewide	6,102	67

\*Criterion average of 74 percent attained

### Conclusion

The assessment results presented in Table 34 indicate the existence of learner needs in fifteen of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 60 percent to 74 percent. This range can be compared to an average expected criterion of 74 percent correct responses for items related to comprehension of problem-solving (correct solutions).

Item analysis data for performance objective 1.1.8.3 are provided in Appendix F.

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Performance Objective 1.1.8.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of the components of arithmetic word problems by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Analysis of the Components of Arithmetic Word Problems

Test Situation: Pupils were asked to choose the correct answer to questions related to the components of arithmetic word problems.

Item: To find the average total points made by the 5 players in a basketball game, we need to know:

- a. the points attempted by each player.
- b. the total points made by each player.
- c. the number of baskets made by each player.
- d. the number of baskets missed by each player.

Results

The average level of items correct for analysis of the components of arithmetic word problems for each Educational Development District is provided in Table 35.

TABLE 35

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
ANALYSIS OF THE COMPONENTS OF ARITHMETIC WORD PROBLEMS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Application Subtest, Item Numbers 41, 44, 47, 49

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	59
2	261	59
3	224	62
4	413	58
5	449	63
6	226	57
7	463	62
8	1,352	63
9	230	60
10	148	62
11	62	61
12	518	53
13	686	52
14	300	55
15	421	67
16	176	62

Kentucky--

Statewide 6,102 60

\*Criterion average of 70 percent attained

### Conclusion

Results related to analysis of components of arithmetic word problems which are presented in Table 35 indicate the existence of learner needs in sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 52 percent to 67 percent. This range can be compared to an average expected criterion of 70 percent correct responses for the related items.

Item analysis data for performance objective 1.1.8.4 are provided in Appendix F.

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Study SkillsReference MaterialsPerformance Objective 1.1.9

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of reference material techniques by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Reference Material Techniques

Test Situation: Pupils were asked to read various reference materials and choose the correct answer to questions relating to these materials.

Item: (Three library catalog cards) The subject card is:

- a. Card 1.
- b. Card 2.
- c. Card 3.
- d. None shown.

Results

The average grade equivalent scores for knowledge of reference material techniques and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 36 for each Educational Development District.



TABLE 36

AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR KNOWLEDGE OF  
REFERENCE MATERIAL TECHNIQUES

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Reference Materials Subtest

Educational Development District	Number of pupils	Average grade equivalent score	Percentage of pupils meeting the criterion
1	243	8.4	47
2	553	7.6	34
3	261	8.3	45
4	549	7.7	38
5	588	8.4	49
6	247	8.3	49
7	506	8.1	45
8	1,254	8.8*	54
9	288	7.9	40
10	171	9.0*	53
11	306	7.7	36
12	485	7.5	37
13	656	7.2	32
14	354	7.4	33
15	561	8.2	46
16	78	8.8*	50
Kentucky-- Statewide	7,100	8.1	43

\*Criterion score of 8.7 attained

### Conclusion

The assessment results presented in Table 36 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 32 percent to 54 percent.

Item analysis data, listed by reference materials skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

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Results for boys and for girls for the Reference Materials Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Knowledge of Reference Material Techniques

Performance Objective 1.1.9.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of dictionary use by attaining an average level of correct answers equal to or exceeding the criterion (64 percent) as measured by the related items of the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Dictionary Use

Test Situation: Pupils were asked to choose the correct answer to questions relating to the use of a dictionary.

Item: (An entry from the dictionary) How many of the definitions given for the word "swing" are verbs?

- a. two
- b. four
- c. six
- d. eight

Results

The average level of items correct for knowledge of dictionary use for each Educational Development District is provided in Table 37.

TABLE 37

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
KNOWLEDGE OF DICTIONARY SKILLS

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Reference Materials Subtest, Item Numbers 16-20

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	66*
2	261	65*
3	224	66*
4	413	64*
5	449	71*
6	226	72*
7	463	68*
8	1,352	65*
9	230	65*
10	148	74*
11	62	73*
12	518	59
13	686	57
14	300	61
15	421	71*
16	176	52
Kentucky--		
Statewide	6,102	65*

\*Criterion average of 64 percent attained

### Conclusion

Results related to knowledge of dictionary use which are presented in Table 37 indicate the existence of learner needs in four of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 57 percent to 74 percent. This range can be compared to an average expected criterion of 64 percent correct responses for the related items.

Item analysis data for performance objective 1.1.9.1 are provided in Appendix F.

Performance Objective 1.1.9.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of library use by attaining an average level of correct answers equal to or exceeding the criterion (67 percent) as measured by the related items of the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Knowledge of Library Use

Test Situation: Pupils were asked to choose the correct answer to questions relating to the use of a library.

Item: In which reference book would you look to find an explanation of how coal is mined?

- a. encyclopedia
- b. Who's Who in America
- c. World Almanac
- d. atlas

Results

The average level of items correct for knowledge of library use for each Educational Development District is provided in Table 38.

TABLE 38

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
KNOWLEDGE OF LIBRARY USE

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Reference Materials Subtest, Item Numbers 1-15

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	60
2	261	63
3	224	65
4	413	60
5	449	67*
6	226	67*
7	463	65
8	1,352	65
9	230	63
10	148	69*
11	62	68*
12	518	54
13	686	54
14	300	58
15	421	67*
16	176	46
Kentucky-- Statewide	6,102	62

\*Criterion average of 67 percent attained

### Conclusion

The assessment results presented in Table 38 indicate the existence of learner needs in eleven of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 46 percent to 69 percent. This range can be compared to an average expected criterion of 67 percent correct responses for items related to knowledge of library use.

Item analysis data for performance objective 1.1.9.2 are provided in Appendix F.

Graphic MaterialsPerformance Objective 1.1.10

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of graphic materials by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Graphic Materials

Test Situation: Pupils were asked to look at and to use graphic materials and choose correct answers to questions relating to these materials.

Item: (A graph presenting the population growth by areas in Kentucky) Which area had the greatest population growth from 1960 to 1965?

- a. Area I
- b. Area II
- c. Area III
- d. Area IV

Results

The average grade equivalent scores for comprehension of graphic materials and the percentage of pupils meeting the criterion score of 8.7 are presented in Table 39 for each Educational Development District.

TABLE 39

**AVERAGE GRADE EQUIVALENT SCORES AND THE PERCENTAGE OF  
EIGHTH GRADE PUPILS MEETING THE CRITERION BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR COMPREHENSION OF GRAPHIC MATERIALS**

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest

<u>Educational Development District</u>	<u>Number of pupils</u>	<u>Average grade equivalent score</u>	<u>Percentage of pupils meeting the criterion</u>
1	243	8.6	46
2	553	7.7	33
3	262	8.3	44
4	551	7.8	38
5	590	8.5	47
6	247	8.1	40
7	508	8.2	42
8	1,259	9.0*	54
9	287	8.3	46
10	171	9.1*	52
11	306	7.6	33
12	484	7.3	32
13	656	7.2	28
14	354	7.4	30
15	561	8.4	44
16	78	9.3*	54
Kentucky-- Statewide	7,110	8.2	42

\*Criterion score of 8.7 attained

Conclusion

The assessment results presented in Table 39 indicate the existence of learner needs in thirteen of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion of a grade equivalency of 8.7 ranged from 28 percent to 54 percent..

Item analysis data, listed by graphic material skills/concepts for individual Educational Development Districts, may be reviewed in Appendix F.

Results for boys and for girls for the Graphic Materials Subtest by Educational Development District are presented in Appendix E.

Specific Skills/Concepts Related to Comprehension of Graphic MaterialsPerformance Objective 1.1.10.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of symbols, legends, and data presented in graphic or tabular form by attaining an average level of correct answers equal to or exceeding the criterion (51 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension of Symbols, Legends, and Data Presented in Graphic or Tabular Form

Test Situation: Pupils were asked to look at and to use graphic materials and choose correct answers to questions relating to the symbols, legends and data presented in these materials.

Item: (A graph presenting the population growth by areas in Kentucky) In what year was there the greatest amount of population growth for Area III?

- a. 1950 to 1955
- b. 1955 to 1960
- c. 1960 to 1965
- d. 1965 to 1970

Results

The average level of items correct for comprehension of symbols, legends, and data presented in graphic or tabular form for each Educational Development District is provided in Table 40.



TABLE 40

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF SYMBOLS, LEGENDS, AND DATA  
PRESENTED IN GRAPHIC OR TABULAR FORM

Comprehensive Test of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest, Item Numbers 21, 37, 38, 48, 50

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	60*
2	261	60*
3	224	61*
4	413	57*
5	449	62*
6	226	61*
7	463	65*
8	1,352	64*
9	230	60*
10	148	66*
11	62	67*
12	518	50
13	686	51*
14	300	55*
15	421	64*
16	176	48
Kentucky-- Statewide	6,102	59*

\*Criterion average of 51 percent attained

### Conclusion

The assessment results presented in Table 40 indicate the existence of learner needs in only two of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 48 percent to 65 percent. This range can be compared to an average expected criterion of 51 percent correct responses for items related to comprehension of symbols, legends, and data presented in graphic or tabular form.

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Item analysis data for performance objective 1.1.10.1 are provided in Appendix F.

### Performance Objective 1.1.10.2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships presented in graphical form by attaining an average level of correct answers equal to or exceeding the criterion (56 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

### Sample Assessment Item for Comprehension of Relationships Presented in Graphical Form

Test Situation: Pupils were asked to look at and to use graphic materials and to choose the correct answer to questions relating to relationships presented in the graph.

Item: (A graph presenting the population growth by areas in Kentucky) For which two areas was the population growth the same in 1965 to 1970?

- a. Area I
- b. Area II
- c. Area III
- d. Area IV

### Results

The average level of items correct for comprehension of relationships presented in graphical form for each Educational Development District is provided in Table 41.

TABLE 41

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION OF RELATIONSHIPS PRESENTED IN GRAPHICAL FORM

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest,  
Item Numbers 23, 24, 26, 30, 35, 36, 39, 40, 46, 47

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	59*
2	261	63*
3	224	62*
4	413	60*
5	449	66*
6	226	64*
7	463	64*
8	1,352	64*
9	230	62*
10	148	67*
11	62	66*
12	518	51
13	686	53
14	300	56*
15	421	66*
16	176	48
Kentucky--		
Statewide	6,102	61*

\*Criterion average of 56 percent attained

### Conclusion

The assessment results presented in Table 41 indicate the existence of learner needs in only three of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 44 percent to 66 percent. This range can be compared to an average expected criterion of 56 percent correct responses for items related to comprehension of relationships presented in graphical form.

Item analysis data for performance objective 1.1.10.2 are provided in Appendix F.

Performance Objective 1.1.10.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (draw conclusions) of graphic data by attaining an average level of correct answers equal to or exceeding the criterion (52 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Comprehension (Draw Conclusions) of Graphic Data

Test Situation: Pupils were asked to look at and to use graphic materials and choose the correct answers to questions involving drawing conclusions from the material.

Item: (A graph presenting the population growth by areas in Kentucky) In 1965 to 1970, which area had twice the population growth of Area II?

- a. Area I
- b. Area III
- c. Area IV
- d. Area V

Results

The average level of items correct for comprehension (draw conclusions) of graphic data for each Educational Development District is provided in Table 42.

TABLE 42

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS'  
COMPREHENSION (DRAW CONCLUSIONS) OF GRAPHIC DATA

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest,  
Item Numbers 22, 25, 27, 29, 34, 41-44, 49

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	56*
2	261	58*
3	224	57*
4	413	54*
5	449	59*
6	226	60*
7	463	58*
8	1,352	58*
9	230	58*
10	148	60*
11	62	62*
12	518	49
13	686	49
14	300	51
15	421	61*
16	176	44
Kentucky-- Statewide	6,102	56*

\*Criterion average of 52 percent attained

### Conclusion

Results related to comprehension (draw conclusions) of graphic data which are presented in Table 42 indicate the existence of learner needs in only four of the sixteen Educational Development Districts. The average percentage of correct responses by Educational Development District ranged from 44 percent to 62 percent. This range can be compared to an average expected criterion of 52 percent correct responses for the related items.

Item analysis data for performance objective 1.1.10.3 are provided in Appendix F.

Performance Objective 1.1.10.4

During the spring semester of the eighth grade, Kentucky pupils will demonstrate the ability to analyze graphic data and determine extended meaning by attaining an average level of correct answers equal to or exceeding the criterion (55 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Sample Assessment Item for Analysis of Graphic Data to Determine Extended Meaning

Test Situation: Pupils were asked to look at and to use graphic materials and choose correct answers to questions of extending the meanings presented in the materials.

Item: (A graph presenting the population growth by areas in Kentucky) If the population growth continues in the same manner, which area will have the greatest population in 1970 to 1975?

- a. Area I
- b. Area II
- c. Area III
- d. Area IV

Results

The average level of items correct for analysis of graphic data to determine extended meaning for each Educational Development District is provided in Table 43.

TABLE 43

AVERAGE PERCENTAGE OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS  
ANALYSIS OF GRAPHIC DATA AND DETERMINATION OF  
EXTENDED MEANING

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest, Item Numbers 28, 31-33, 45

Educational Development District	Number of pupils	Average percentage of correct answers
1	175	55*
2	261	59*
3	224	60*
4	413	56*
5	449	59*
6	226	60*
7	463	61*
8	1,352	61*
9	230	62*
10	148	64*
11	62	58*
12	518	50
13	686	49
14	300	55*
15	421	63*
16	176	43
Kentucky-- Statewide	6,102	57*

\*Criterion average of 55 percent attained

### Conclusion

The assessment results presented in Table 43 indicate the existence of learner needs in three of the sixteen Educational Development Districts. The average percentage of correct answers by Educational Development District ranged from 43 percent to 64 percent. This range can be compared to an average expected criterion of 55 percent correct responses for items related to analyzing graphic data and determining extended meanings.

Item analysis data for performance objective 1.1.10.4 are provided in Appendix F.

Goal 1.7: Each citizen of the Commonwealth should be assured an opportunity to develop a positive attitude toward the acquisition of knowledge - both formal and informal.

The assessment of Goal 1.7 involved measurement of affective behavior concerning attitudes toward (1) school, (2) reading, and (3) arithmetic. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 1.7 are presented below.

#### Attitude Toward School

##### Performance Objective 1.7.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward school by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

##### Attitude Toward School Statements

The following statements were presented to eighth grade pupils to assess the response of pupils toward school. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. School is fair to students. (agreement)
- Statement #2. I often get discouraged in school. (disagreement)
- Statement #3. I am thinking about quitting school. (disagreement)
- Statement #4. I often feel upset in school. (disagreement)
- Statement #5. I believe I am getting a good education in school. (agreement)
- Statement #6. Coming to school is worthwhile. (agreement)
- Statement #7. My grades in school discourage me. (disagreement)
- Statement #8. I can get information at school concerning college and future work. (agreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward school statements in each Educational Development District and statewide is presented in Table 44.



TABLE 44

PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
SCHOOL BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward School

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	70*	50*	93*	60*	86*	87*	67*	64*
2	381	70*	38	93*	58*	87*	86*	67*	73*
3	145	56*	50*	71*	63*	79*	80*	75*	74*
4	512	80*	42	88*	65*	89*	87*	71*	79*
5	487	68*	39	87*	52*	85*	84*	68*	71*
6	311	71*	41	90*	53*	84*	83*	68*	81*
7	494	64*	40	87*	59*	84*	80*	71*	75*
8	1,231	56*	45	87*	61*	61*	79*	69*	81*
9	265	70*	44	91*	65*	86*	87*	71*	79*
10	142	71*	48	93*	63*	87*	87*	80*	89*
11	225	77*	39	91*	60*	89*	83*	63*	74*
12	482	72*	37	84*	55*	87*	85*	67*	73*
13	691	68*	35	84*	51*	82*	83*	63*	64*
14	330	90*	33	82*	51*	90*	87*	66*	73*
15	552	64*	41	91*	57*	84*	83*	66*	70*
16	178	69*	49	91*	65*	90*	85*	76*	82*
Kentucky-- Statewide	6,637	65*	41	88*	58*	85*	83*	68*	75*

\*Criterion percentage of 50 percent attained

### Conclusions

Results, related to attitudes toward school presented in Table 44 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statements #1 and 3 through 8 for all Educational Development Districts. However, a learner need was indicated in some districts for statement #2 due to less than 50 percent of the pupils giving the desired directional response.

Attitude Toward ReadingPerformance Objective 1.7.2

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward reading by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Attitude Toward Reading Statements

The following statements were presented to eighth grade pupils to assess the response of pupils toward reading. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. I like to read before I go to bed. (agreement)
- Statement #2. I am not a very good reader. (disagreement)
- Statement #3. Reading is one of my favorite activities. (agreement)
- Statement #4. Reading is not very important. (disagreement)
- Statement #5. When I have some free time, I like to read a book. (agreement)
- Statement #6. I like to read hard books. (agreement)
- Statement #7. I like to answer questions about things I have read in school. (agreement)
- Statement #8. Most school books are not very interesting. (disagreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward reading statements in each Educational Development District and statewide is presented in Table 45.

TABLE 45

PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
READING BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward Reading

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	54*	69*	50*	91*	64*	36	58*	47
2	381	48	67*	40	89*	56*	35	54*	45
3	145	54*	77*	45	91*	57*	42	53*	46
4	512	52*	71*	42	90*	54*	36	63*	51*
5	487	42	68*	42	87*	57*	33	59*	42
6	311	45	70*	34	88*	57*	37	57*	46
7	494	48	71*	40	86*	58*	34	48	35
8	1,231	44	73*	31	88*	47	31	44	40
9	265	48	73*	42	90*	62*	39	58*	45
10	142	63*	82*	52*	94*	71*	50*	49	46
11	225	48	68*	43	88*	67*	40	64*	46
12	485	57*	70*	43	88*	68*	46	66*	47
13	691	46	64*	45	88*	63*	41	58*	46
14	330	57*	43	48	82*	67*	46	61*	49
15	553	47	76*	41	87*	56*	38	53*	46
16	178	59*	79*	52*	93*	71*	46	59*	54*
Kentucky-- Statewide	6,637	49	71*	41	88*	59*	37	55*	44

\*Criterion percentage of 50 percent attained

### Conclusions

Results related to attitudes toward reading presented in Table 45 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statement 4. However, learner needs were indicated in some districts for statements 1 through 3 and 5 through 8.

Attitude Toward Arithmetic

Performance Objective 1.7.3

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward arithmetic by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Attitude Toward Arithmetic Statements

The following statements were presented to eighth grade pupils to assess the response of pupils toward arithmetic. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. Math is interesting to me.. (agreement)
- Statement #2. Math is not my favorite subject. (disagreement)
- Statement #3. I would like to spend more time in working math problems. (agreement)
- Statement #4. Math is not very important. (disagreement)
- Statement #5. Working out math problems is interesting. (agreement)
- Statement #6. Math really makes me feel good. (agreement)
- Statement #7. I don't like to explain math problems. (disagreement)
- Statement #8. I would like to spend more time working with math. (agreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward arithmetic statements in each Educational Development District and statewide is presented in Table 46.

TABLE 46

PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
ARITHMETIC BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward Arithmetic

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	67*	38	30	88*	53*	33	45	36
2	381	57*	34	38	86*	60*	30	39	37
3	145	63*	31	50*	60*	90*	39	31	36
4	512	68*	44	40	90*	72*	38	42	45
5	487	59*	38	41	85*	61*	35	38	42
6	311	59*	43	37	86*	60*	32	39	43
7	494	62*	48	37	85*	59*	30	39	39
8	1,231	54*	32	27	97*	55*	23	33	30
9	265	61*	39	32	88*	64*	36	39	43
10	142	60*	35	40	90*	66*	31	39	45
11	225	79*	49	42	84*	72*	38	40	47
12	485	60*	41	47	82*	68*	36	40	45
13	691	61*	41	45	85*	65*	35	38	49
14	330	64*	35	48	81*	70*	43	39	52*
15	553	55*	34	37	86*	61*	30	40	42
16	178	80*	43	42	89*	63*	38	35	49
Kentucky-- Statewide	6,637	59*	38	38	87*	60*	32	39	41

\*Criterion percentage of 50 percent attained

### Conclusions

Results related to attitudes toward arithmetic presented in Table 46 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statements #1, 4, and 5 for all Educational Development Districts. However, a learner need was indicated in some districts for statements #2, 3, 6, 7, and 8 due to less than 50 percent of the pupils giving the desired directional response.

## GOAL AREA III: HUMAN RELATIONSHIPS

Goal 3.2: Each citizen of the Commonwealth should have an understanding of the worth and dignity of other people.

The assessment of Goal 3.2 involved measurement of affective behavior concerning attitude toward peers. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 3.2 are presented below.

Performance Objective 3.2.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward peers by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Attitude Toward Peers Statements

The following statements were presented to eighth grade pupils to assess the response of pupils toward peers. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. Making friends at school is easy. (agreement)
- Statement #2. I like my classmates. (agreement)
- Statement #3. I don't care if I make the same grades as my friends. (disagreement)
- Statement #4. Students in my school make other students feel welcome. (agreement)
- Statement #5. I look forward to seeing my friends at school. (agreement)
- Statement #6. I have lots of friends in school. (agreement)
- Statement #7. My friends have difficulty with reading. (disagreement)
- Statement #8. I get discouraged with my friends. (disagreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward peers statements in each Educational Development District and statewide is presented in Table 47.

TABLE 47

PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
PEERS BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward Peers

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	81*	95*	50*	72*	97*	90*	79*	59*
2	381	83*	55*	45	70*	95*	87*	79*	58*
3	145	79*	95*	52*	64*	95*	89*	79*	64*
4	512	85*	94*	49	72*	95*	90*	80*	60*
5	487	86*	92*	44	69*	54*	90*	59*	56*
6	311	79*	94*	40	65*	92*	87*	76*	58*
7	494	80*	91*	41	60*	92*	86*	76*	59*
8	1,231	79*	92*	37	62*	90*	85*	81*	72*
9	265	80*	92*	50*	74*	94*	91*	81*	64*
10	142	81*	95*	59*	69*	95*	90*	75*	51*
11	225	87*	97*	49	72*	94*	93*	69*	53*
12	485	86*	97*	46	73*	93*	89*	54*	61*
13	691	80*	95*	50*	68*	91*	88*	65*	57*
14	330	80*	97*	50*	76*	95*	91*	66*	51*
15	553	80*	94*	44	65*	92*	87*	80*	59*
16	178	89*	99*	43	70*	95*	92*	89*	64*
Kentucky-- Statewide	6,637	82*	95*	44	68*	93*	88*	75*	59*

\*Criterion percentage of 50 percent attained

### Conclusions

Results related to attitudes toward peers presented in Table 47 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statements #1, 2, and 4 through 8 for all Educational Development Districts. However, a learner need was indicated in some districts for statement #3 due to less than 50 percent of the pupils giving the desired directional response.

## GOAL AREA IV: CITIZENSHIP

Goal 4.3: Each citizen of the Commonwealth should have a knowledge of the interdependence of the individual's rights and responsibilities in a democracy.

The assessment of Goal 4.3 involved measurement of affective behavior concerning attitude toward citizenship. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 4.3 are presented below.

Performance Objective 4.3.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward citizenship by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Attitude Toward Citizenship Statements

The following statements were presented to eighth grade pupils to assess the response of pupils toward citizenship. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. If everyone disobeys a civil law, then it is okay for me to disobey it too. (disagreement)
- Statement #2. Democracy and the democratic processes should be practiced within the school. (agreement)
- Statement #3. To succeed in politics, one must compromise his principles. (disagreement)
- Statement #4. I feel that everyone should register and vote. (agreement)
- Statement #5. I believe that every student should be taught to respect the laws of government. (agreement)
- Statement #6. It has been said that the simplest form of government has its origin in the home. (agreement)



Statement #7. I believe that for every right and privilege there is a corresponding responsibility. (agreement)

Statement #8. It is important to understand the purpose, structure, and functioning of the United Nations. (agreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward citizenship statements in each Educational Development District and statewide is presented in Table 48.

TABLE 48  
PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
CITIZENSHIP BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward Citizenship

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	89*	75*	15	72*	94*	79*	94*	87*
2	381	91*	73*	21	74*	94*	80*	90*	86*
3	145	93*	72*	18	73*	95*	76*	82*	88*
4	512	92*	71*	21	82*	96*	81*	93*	91*
5	487	85*	68*	20	76*	90*	80*	89*	86*
6	311	88*	73*	19	77*	94*	81*	93*	97*
7	494	89*	68*	24	77*	93*	77*	91*	82*
8	1,231	88*	70*	33	76*	90*	79*	89*	84*
9	265	92*	69*	14	80*	94*	86*	92*	87*
10	142	91*	68*	31	74*	88*	74*	91*	96*
11	225	89*	78*	11	78*	94*	82*	88*	92*
12	485	86*	66*	26	78*	84*	74*	86*	91*
13	691	85*	70*	27	77*	91*	72*	88*	89*
14	330	76*	78*	20	82*	95*	76*	93*	90*
15	553	88*	73*	21	77*	91*	78*	91*	85*
16	178	86*	68*	16	74*	96*	76*	91*	86*
Kentucky--									
Statewide	6,637	87*	69*	21	77*	93*	79*	90*	87*

\*Criterion percentage of 50 percent attained

### Conclusions

Results related to attitudes toward citizenship presented in Table 48 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statements #1 and 3 through 8 for all Educational Development Districts. However, a learner need was indicated in all districts for statement #2 due to less than 50 percent of the pupils giving the desired directional response.

## GOAL AREA VI: PHYSICAL AND MENTAL WELL BEING

Goal 6.3: Each citizen of the Commonwealth should have a positive and realistic acceptance of self.

The assessment of Goal 6.3 involved measurement of affective behavior concerning attitude toward self. It was determined that affective behavior assessment results compiled from the Kentucky Student Attitude Inventory would be reported in relation to the percentage of eighth grade pupils who responded in the desired manner to the individual attitudinal questions. A criterion of 50 percent or greater positive pupil response was established as the level of desired performance. The Kentucky Student Attitude Inventory is provided in Appendix D. The results for Goal 6.3 are presented below.

Performance Objective 6.3.1

During the spring semester of the eighth grade, Kentucky pupils will respond positively toward self by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

Attitude Toward Self Statements

The following statements were presented to eighth grade pupils to assessment response of pupils toward self. The directional response which was considered positive is included in parenthesis following each statement.

- Statement #1. I make friends easily. (agreement)
- Statement #2. I generally feel comfortable in my classes. (agreement)
- Statement #3. I am not very cheerful. (disagreement)
- Statement #4. If I have something to say, I generally say it. (agreement)
- Statement #5. I am easy to like. (agreement)
- Statement #6. My classmates do better in school than I do. (disagreement)
- Statement #7. My studying is not satisfactory. (disagreement)
- Statement #8. I know my subjects very well. (agreement)

The percentage of eighth grade pupils responding positively to each of the attitude toward self statements in each Educational Development District and statewide is presented in Table 49.

TABLE 49

PERCENTAGE OF EIGHTH GRADE PUPILS RESPONDING POSITIVELY TO  
THE INDIVIDUAL STATEMENTS RELATED TO ATTITUDE TOWARD  
SELF BY EDUCATIONAL DEVELOPMENT DISTRICT

Kentucky Student Attitude Inventory, Attitude Toward Self

Educational Development District	Number of pupils	Percentage positive response by statements							
		1	2	3	4	5	6	7	8
1	213	92*	80*	87*	68*	86*	67*	63*	60*
2	381	93*	80*	84*	69*	81*	65*	59*	57*
3	145	90*	74*	84*	68*	84*	74*	67*	63*
4	512	93*	78*	83*	65*	85*	69*	65*	62*
5	487	96*	75*	81*	71*	84*	64*	80*	60*
6	311	93*	78*	82*	72*	84*	68*	62*	72*
7	494	93*	79*	80*	66*	84*	69*	67*	65*
8	1,231	90*	81*	88*	71*	84*	72*	64*	61*
9	265	89*	80*	82*	90*	81*	69*	71*	65*
10	142	91*	77*	91*	62*	88*	67*	57*	55*
11	225	96*	75*	80*	63*	86*	66*	66*	68*
12	485	93*	75*	83*	60*	84*	65*	54*	61*
13	691	93*	69*	77*	65*	82*	62*	54*	59*
14	330	94*	84*	77*	67*	84*	56*	60*	65*
15	553	93*	74*	84*	69*	83*	69*	66*	59*
16	178	96*	84*	88*	66*	89*	83*	71*	70*
Kentucky-- Statewide	6,637	92*	77*	83*	69*	84*	67*	62*	61*

\*Criterion percentage of 50 percent attained

### Conclusions

Results related to attitudes toward self presented in Table 49 indicate that 50 percent or more of the eighth grade pupils gave the desired directional positive response to statements #1 through 8 for all Educational Development Districts. No learner needs were indicated.

## GOAL AREA VII: OCCUPATIONAL COMPETENCE

Goal 7.2: Each citizen of the Commonwealth should have an understanding of the variety of career opportunities.

The occupational competence goal was assessed in the areas of (1) occupational characteristics, (2) occupational preparational requirements and (3) career planning using the Assessment of Career Development, Form C. The 50th percentile of the national norm at the eighth grade was established as the level of desired performance. The results for Goal 7.2 are presented below.

### Occupational Characteristics

#### Performance Objective 7.2.1

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational characteristics by attaining a raw score equal to or exceeding the criterion (31) as measured by the occupational characteristics scale of the Assessment of Career Development, Form C.

#### Sample Assessment Item for Knowledge of Occupational Characteristics

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: A certified public accountant

- a. certifies applicants for public housing
- b. compiles and checks business records
- c. decides how products should be advertised
- d. does public relations work

### Results

The average number of correct answers and percentage of pupils meeting the criterion are presented in Table 50.

TABLE 50

AVERAGE NUMBER OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS' KNOWLEDGE  
OF OCCUPATIONAL CHARACTERISTICS

Assessment of Career Development, Form C, Job Knowledge Subtest,  
Item Numbers 1-11, 13, 14, 16-18, 20-28, 32-34, 37, 39, 40, 44-58, 65-72

Educational Development District	Number of pupils	Average number of correct answers	Percentage of pupils meeting the criterion
1	334	31*	51
2	423	31*	54
3	197	30	49
4	533	31*	52
5	414	30	46
6	340	30	49
7	561	31*	55
8	1,305	33*	66
9	294	30	49
10	226	30	48
11	246	29	45
12	421	28	39
13	676	28	39
14	364	29	44
15	484	33*	64
16	179	31*	55
<hr/>			
Kentucky-- Statewide	6,997	31*	52

\*Criterion average of 31 attained

### Conclusion

The assessment results presented in Table 50 indicate the existence of learner needs in nine of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion ranged from 37 to 66.

Occupational Preparation RequirementsPerformance Objective 7.2:2

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational preparation requirements by attaining a raw score equal to or exceeding the criterion (9) as measured by the occupational preparation requirements scale of the Assessment of Career Development, Form C.

Sample Assessment Item for Knowledge of Occupational Preparation Requirements

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: It is usually necessary to enter an apprenticeship program to become a

- a. dry cleaner
- b. florist
- c. plumber
- d. bank teller

Results

The average number of correct answers and percentage of pupils meeting the criterion are presented in Table 51.

TABLE 51

AVERAGE NUMBER OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS' KNOWLEDGE  
OF OCCUPATIONAL PREPARATION REQUIREMENTS

Assessment of Career Development, Form C, Job Knowledge Subtest,  
Item Numbers 12, 15, 19, 29-31, 35, 36, 38, 41-43, 59-64

Educational Development District	Number of pupils	Average number of correct answers	Percentage of pupils meeting the criterion
1	334	10*	69
2	423	10*	66
3	197	9*	64
4	533	10*	68
5	414	9*	62
6	340	10*	67
7	561	10*	66
8	1,304	10*	74
9	294	9*	65
10	226	9*	58
11	246	9*	61
12	421	9*	54
13	676	9*	54
14	364	9*	64
15	484	10*	73
16	179	10*	67
Kentucky-- Statewide	6,996	10*	66

\*Criterion average of 9 attained

### Conclusion

The assessment results presented in Table 51 indicate the existence of learner needs in none of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion ranged from 54 to 74.

Career Planning KnowledgePerformance Objective 7.2.3

During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of the various aspects of career planning by attaining a raw score equal to or exceeding the criterion (23) as measured by the career planning knowledge scale of the Assessment of Career Development, Form C.

Sample Assessment Item for Knowledge of Career Planning

Test Situation: Pupils were asked to read an item and choose the one best answer.

Item: Choosing a job is similar to choosing a marriage partner in that

- a. there is little you can do to prepare for either choice.
- b. how a person feels about the choice is important in both cases.
- c. there is only one right person and one right job for each of us.
- d. both choices are final.

Results

The average number of correct answers and percentage of pupils meeting the criterion are presented in Table 52.



TABLE 52

AVERAGE NUMBER OF CORRECT ANSWERS BY EDUCATIONAL  
DEVELOPMENT DISTRICT FOR EIGHTH GRADE PUPILS' KNOWLEDGE  
OF CAREER PLANNING

Assessment of Career Development, Form C,  
Career Planning Knowledge Subtest, Item Numbers 1-40

Educational Development District	Number of pupils	Average Number of correct answers	Percentage of pupils meeting the criterion
1	331	24*	57
2	422	23*	57
3	197	24*	55
4	529	23*	58
5	414	23*	53
6	343	23*	55
7	561	23*	56
8	1,279	24*	62
9	295	23*	53
10	224	23*	54
11	238	23*	51
12	418	22	48
13	676	21	44
14	361	23*	53
15	487	23*	63
16	179	24*	63
Kentucky--			
Statewide	6,954	23*	56

\*Criterion average of 23 attained

### Conclusion

The assessment results presented in Table 52 indicate the existence of learner needs in two of the sixteen Educational Development Districts. The percentage of pupils attaining the criterion ranged from 44 to 63.

## LIST OF REFERENCES

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APPENDIX A

GOALS OF EDUCATION IN KENTUCKY

## GOALS OF EDUCATION IN KENTUCKY

### GOAL AREA I: GENERAL EDUCATION

- 1.1 Skill in written and oral communication, reading, computation, and mathematical concepts
- 1.2 Understand the language common to the various learning disciplines
- 1.3 Knowledge of logical approaches for problem solving
- 1.4 Application of acquired skills to real-life situations
- 1.5 Knowledge in the various learning disciplines (e.g. science, social science, foreign language, etc.)
- 1.6 Understand the resources available and the methods of collecting information
- 1.7 Positive attitude toward the acquisition of knowledge - both formal and informal

### GOAL AREA II: ECONOMIC UNDERSTANDING

- 2.1 Consumer knowledge
- 2.2 Information on tax structures and obligations
- 2.3 An understanding of money management
- 2.4 A knowledge of the American economic system in relation to international economics
- 2.5 Demonstrate economic independence

### GOAL AREA III: HUMAN RELATIONSHIPS

- 3.1 Knowledge of one's self in relation to capabilities and interests
- 3.2 Understanding the worth and dignity of other people
- 3.3 Ability to work with and relate to other individuals and groups
- 3.4 Appreciation of our culture and those attributes which have enabled man to survive and accomplish

## GOAL AREA IV: CITIZENSHIP

- 4.1 Understanding the necessity for structured social and political organization
- 4.2 Understanding the necessity for ethical values in determining right from wrong
- 4.3 Knowledge of the interdependence of the individual's rights and responsibilities in a democracy
- 4.4 Awareness of one's relationship to his physical environment and the wise use of resources
- 4.5 Understanding the effects of technology and of population growth on the environment
- 4.6 Attitude of cooperation for the betterment of one's community and society
- 4.7 Understanding the relationship of historical occurrences to present and future planning
- 4.8 Knowledge of international relationships
- 4.9 Awareness of the importance of involvement in community affairs

## GOAL AREA V: CREATIVE, CONSTRUCTIVE AND CRITICAL THINKING

- 5.1 Ability to examine constructively and creatively
- 5.2 Development of individual creative talents
- 5.3 Respect for creative contributions of others
- 5.4 Application of the logical processes (e.g. research, analysis, evaluation, etc.)
- 5.5 Critical awareness of the less obvious qualities or conditions which contribute to total understanding

## GOAL AREA VI: PHYSICAL AND MENTAL WELL BEING

- 6.1 Develop physical fitness through appropriate activities
- 6.2 Understanding of the body processes and functions
- 6.3 A positive and realistic acceptance of self
- 6.4 Development of skills for and appreciation of leisure time activities
- 6.5 Understanding and value for good nutritional habits

**GOAL AREA VII: OCCUPATIONAL COMPETENCE**

- 7.1 Understanding the contributions of occupations to society
- 7.2 Understanding of the variety of career opportunities
- 7.3 Acquisition of occupational skills (entry and maintenance skills)
- 7.4 Ability to cope with changing occupational requirements and demands

**GOAL AREA VIII: CULTURAL APPRECIATION**

- 8.1 Acquisition of knowledge of art, musical, literary and drama forms
- 8.2 Understanding of and value for the historical and cultural heritage
- 8.3 Development of aesthetic values
- 8.4 Expression of cultural values

APPENDIX B

HIERARCHY OF GOALS AND PERFORMANCE OBJECTIVES

# HIERARCHY OF GOALS AND PERFORMANCE OBJECTIVES

## GRADE 8

### Kentucky Educational Assessment Program (1974)

#### GOAL AREA I: GENERAL EDUCATION

Goal 1.1: Each citizen of the Commonwealth should be assured an opportunity to realize his full potential in written and oral communication, reading, computation, and mathematical concepts.

#### Related Performance Objectives

- 1.1.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of vocabulary by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.1.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of the meaning of words in context by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Vocabulary Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate reading comprehension by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.2.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of words and phrases (simple rewording) by attaining an average level of correct answers equal to or exceeding the criterion (72 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.2.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (paraphrasing) of the meaning of ideas by attaining an average level of correct answers equal to or exceeding the criterion (71 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.2.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of main ideas by attaining an average level of correct answers equal to



or exceeding the criterion (65 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

- 1.1.2.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships by attaining an average level of correct answers equal to or exceeding the criterion (63 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.2.5 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (draw conclusions) of given facts and statements by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.2.6 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (inference) of contextual clues by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.2.7 During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of indefinite or incomplete statements (extended meaning) by attaining an average level of correct answers equal to or exceeding the criterion (68 percent) as measured by the related items of the Reading Comprehension Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of spelling by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language/Spelling Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.3.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of correctly and incorrectly spelled words by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language/Spelling Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of the mechanics of language by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

- 1.1.4.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of punctuation skills by attaining an average level of correct answers equal to or exceeding the criterion (74 percent) as measured by the related items of the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.4.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of capitalization skills by attaining an average level of correct answers equal to or exceeding the criterion (61 percent) as measured by the related items of the Language Mechanics Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.5 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of language expression by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.5.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of correct grammatical usage by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.5.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of clarity and/or economy of expression by attaining an average level of correct answers equal to or exceeding the criterion (52 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.5.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of the author's intention (word choice) by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Language Expression Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.6 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of arithmetic computation by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.6.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of addition skills by attaining an average level of correct answers equal to or exceeding the criterion (75 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

- 1.1.6.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of subtraction skills by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.6.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of multiplication skills by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.6.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of division skills by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Computation Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.7 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of arithmetic concepts by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.7.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of arithmetic concepts by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.7.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of arithmetic concepts (converting form) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.7.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of equations by attaining an average level of correct answers equal to or exceeding the criterion (77 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
  - 1.1.7.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of comparative relationships by attaining an average level of correct answers equal to or exceeding the criterion (73 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

- 1.1.7.5 During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of the components of arithmetic problems (organization) by attaining an average level of correct answers equal to or exceeding the criterion (68 percent) as measured by the related items of the Arithmetic Concepts Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.8 During the spring semester of the eighth grade, Kentucky pupils will demonstrate application of skills in solving arithmetic word problems by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Arithmetic Application Subtest of the Comprehensive Test of Basic Skills, Form Q, Level 3.
- 1.1.8.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships (ratio, time, part-whole, sequence, geometric) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.8.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of problem-solving (selecting methods) by attaining an average level of correct answers equal to or exceeding the criterion (69 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.8.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of problem-solving (correct solution) by attaining an average level of correct answers equal to or exceeding the criterion (74 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.8.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate analysis of the components of arithmetic word problems by attaining an average level of correct answers equal to or exceeding the criterion (70 percent) as measured by the related items of the Arithmetic Application Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.9 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of reference material techniques by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.
- 1.1.9.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of dictionary use by attaining an average level of correct answers equal to or exceeding the criterion (64 percent) as measured by the related items of the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.9.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of library use by attaining an average level of correct answers equal to or exceeding the criterion (67 percent) as measured by the related items of the Study Skills/Reference Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.10 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of graphic materials by attaining an average grade equivalent score equal to or exceeding the criterion (8.7) as measured by the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.10.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of symbols, legends, and data presented in graphic or tabular form by attaining an average level of correct answers equal to or exceeding the criterion (51 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.10.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension of relationships presented in graphical form by attaining an average level of correct answers equal to or exceeding the criterion (56 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.10.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate comprehension (draw conclusions) of graphic data by attaining an average level of correct answers equal to or exceeding the criterion (52 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

1.1.10.4 During the spring semester of the eighth grade, Kentucky pupils will demonstrate the ability to analyze graphic data and determine extended meaning by attaining an average level of correct answers equal to or exceeding the criterion (55 percent) as measured by the related items of the Study Skills/Graphic Materials Subtest of the Comprehensive Tests of Basic Skills, Form Q, Level 3.

Goal 1.7: Each citizen of the Commonwealth should have a positive attitude toward the acquisition of knowledge - both formal and informal.

#### Related Performance Objectives

1.7.1 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward school by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.



1.7.2 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward reading by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

1.7.3 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward arithmetic by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

### GOAL AREA III: HUMAN RELATIONSHIPS

Goal 3.2: Each citizen of the Commonwealth should have an understanding of the worth and dignity of other people.

#### Related Performance Objective

3.2.1 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward peers by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

### GOAL AREA IV: CITIZENSHIP

Goal 4.3: Each citizenship of the Commonwealth should have a knowledge of the interdependence of the individual's rights and responsibilities in a democracy.

#### Related Performance Objective

4.3.1 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward citizenship by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

### GOAL AREA VI: PHYSICAL AND MENTAL WELL BEING

Goal 6.3: Each citizen of the Commonwealth should have a positive and realistic acceptance of self.

#### Related Performance Objective

6.3.1 During the spring semester of the eighth grade, Kentucky pupils will respond positively toward self by demonstrating a directional response equal to or exceeding the criterion (50 percent) on the related individual items of the Kentucky Student Attitude Inventory.

## GOAL AREA VII: OCCUPATIONAL COMPETENCE

Goal 7.2: Each citizen of the Commonwealth should have an understanding of the variety of career opportunities.

Related Performance Objectives

- 7.2.1 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational characteristics by attaining a raw score equal to or exceeding the criterion (31) as measured by the occupational characteristics scale of the Assessment of Career Development, Form C.
- 7.2.2 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of occupational preparation requirements by attaining a raw score equal to or exceeding the criterion (9) as measured by the occupational preparation requirements scale of the Assessment of Career Development, Form C.
- 7.2.3 During the spring semester of the eighth grade, Kentucky pupils will demonstrate knowledge of the various aspects of career planning by attaining a raw score equal to or exceeding the criterion (23) as measured by the career planning knowledge scale of the Assessment of Career Development, Form C.

APPENDIX C

SAMPLING PROCEDURES AND SAMPLE SIZE BY PARTICIPATING SCHOOL  
DISTRICT, EDUCATIONAL DEVELOPMENT DISTRICT, AND STATEWIDE

165

251 176



## SAMPLING PROCEDURES

The steps outlined below were implemented to select the sample of eighth grade pupils by Educational Development District and Statewide.

### Sample School District Selection

In 1974 each school district in the state was asked to participate in the program. 112 districts chose to participate.

### Sample Pupil Selection

In order that the resultant data be a valid indicator at the district level, a representative sample within each district was selected in the following manner:

A random numbers generator was used to select pupils by computers for inclusion in the assessment sample. When data were not available from some of the school districts, the following procedures were followed to randomly select the required number of pupils of a given grade in the school district sample.

Every fifth pupil was selected, beginning with the row of pupils to the extreme left of the teacher as she faced her pupils, selecting the first pupil, continuing down each row until the required number had been selected.

The number of pupil participants selected for eighth grade by school district, Educational Development District, and Statewide are presented in Table 53.

TABLE 53

**EIGHTH GRADE SAMPLE SIZE BY PARTICIPATING SCHOOL DISTRICT  
AND EDUCATIONAL DEVELOPMENT DISTRICT**

<b>Educational Development District</b>	<b>Participating School District</b>	<b>Number of Pupils in the Sample</b>
1	Calloway County	49
	Fulton Independent	48
	Marshall County	89
	Mayfield Independent	36
	Murray Independent	40
	<b>Total--Educational Development District #1</b>	<b>262</b>
2	Caldwell County	46
	Central City Independent	22
	Christian County	131
	Crittenden County	37
	Dawson Springs Independent	24
	Greenville Independent	30
	Hopkins County	106
	Livingston County	30
	Muhlenberg County	86
	Todd County	42
	<b>Total--Educational Development District #2</b>	<b>554</b>
3	Daviess County	117
	Hancock County	30
	Henderson Independent	49
	Providence Independent	28
	Webster County	39
	<b>Total--Educational Development District #3</b>	<b>263</b>
4	Allen County	46
	Barren County	56
	Bowling Green Independent	95
	Caverna Independent	30
	Edmonson County	39
	Hart County	53
	Logan County	62
	Simpson County	56
	Warren County	94
	<b>Total--Educational Development District #4</b>	<b>573</b>

TABLE 53 (continued)

EIGHTH GRADE SAMPLE SIZE BY PARTICIPATING SCHOOL DISTRICT  
AND EDUCATIONAL DEVELOPMENT DISTRICT

Educational Development District	Participating School District	Number of Pupils in the Sample
5	Bardstown Independent	30
	Breckinridge County	54
	Elizabethtown Independent	222
	Grayson County	89
	Marion County	62
	Nelson County	88
	Washington County	32
	West Point Independent	15
Total--Educational Development District #5		592
6	Bullitt County	113
	Henry County	33
	Oldham County	50
	Shelby County	56
	Spencer County	30
Total--Educational Development District #6		282
7	Bellevue Independent	30
	Boone County	105
	Campbell County	95
	Covington Independent	91
	Erlanger Independent	46
	Ft. Thomas Independent	36
	Grant County	35
	Newport Independent	55
	Pendleton County	36
Total--Educational Development District #7		599
8	Jefferson County	1,352
Total--Educational Development District #8		1,352
9	Bracken County	30
	Fleming County	36
	Mason County	43
	Maysville Independent	29
	Montgomery County	53
	Mt. Sterling Independent	29
	Robertson County	29
	Rowan County	46
Total--Educational Development District #9		295

TABLE 53 (continued)

EIGHTH GRADE SAMPLE SIZE BY PARTICIPATING SCHOOL DISTRICT  
AND EDUCATIONAL DEVELOPMENT DISTRICT

Educational Development District	Participating School District	Number of Pupils in the Sample
10	Ashland Independent	82
	Boyd County	66
	Fairview Independent	<u>30</u>
Total--Educational Development District #10		178
11	Johnson County	53
	Paintsville Independent	32
	Pike County	192
	Pikeville Independent	<u>30</u>
Total--Educational Development District #11		307
12	Breathitt County	61
	Hazard Independent	30
	Jackson Independent	33
	Jenkins Independent	33
	Knott County	101
	Lee County	35
	Leslie County	62
	Letcher County	83
	Owsley County	30
	Perry County	<u>87</u>
Total--Educational Development District #12		555
13	Bell County	152
	Clay County	95
	Corbin Independent	28
	Harlan County	96
	Harlan Independent	30
	Knox County	99
	Laurel County	88
	Lynch Independent	33
	Middlesboro Independent	48
	Whitley County	47
	Williamsburg Independent	<u>30</u>
Total--Educational Development District #13		746

TABLE 53 (continued)

EIGHTH GRADE SAMPLE SIZE BY PARTICIPATING SCHOOL DISTRICT  
AND EDUCATIONAL DEVELOPMENT-DISTRICT

Educational Development District	Participating School District	Number of Pupils in the Sample
14	Adair County	58
	Casey County	114
	Cumberland County	30
	Green County	34
	Monticello Independent	30
	Science Hill Independent	26
	Taylor County	49
	Wayne County	47
Total--Educational Development District #14		388
15	Anderson County	37
	Bourbon County	45
	Boyle County	38
	Danville Independent	42
	Frankfort Independent	30
	Franklin County	77
	Georgetown Independent	49
	Harrodsburg Independent	30
	Jessamine County	72
	Nicholas County	30
	Paris Independent	20
	Scott County	49
	Woodford County	51
Total--Educational Development District #15		570
16	Berea Independent	29
	Clark County	98
	Estill County	49
Total--Educational Development District #16		176
TOTAL--Statewide		7,602

APPENDIX D

KENTUCKY STUDENT ATTITUDE INVENTORY

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## KENTUCKY EDUCATIONAL NEEDS ASSESSMENT

### Student Attitude Inventory, Grades 8 and 11

#### Directions to Test Administrators

1. Pass out the questionnaire.
2. Pass out separate answer sheet.
3. Read over the directions with the students.
4. Insure that grade level, sex, and district number are indicated on each answer sheet.
5. Answer any individual questions concerning the instrument.

(NOTE TO THE TEST ADMINISTRATORS: Read each question twice to the students and be sure the students use a soft lead pencil, No. 1 or No. 2, to mark the answer sheet.)

Because the answer sheets will be machine scored, please check each sheet, after collecting, to insure that the circles filled in by the student are sufficiently dark and that other stray marks are eliminated from the paper.

## STUDENT QUESTIONNAIRE

These questions are different from the usual school questions. They are about how you feel and have no right or wrong answer.

Do not put your name on this paper or on the separate answer sheet. No one will know what your answers are. On the answer sheet, circle "Male" if you are a boy, or "Female" if you are a girl. Write the number of your district in the spaces under identification number and then darken the appropriate circle in the column under each space. Now darken the circle in the section for grade that corresponds to your grade level.

Remember, there are no right or wrong answers and no one will know what your answers are. Answer honestly how you feel about each statement. Darken the circle "A" (strongly agree), "B" (agree), "C" (disagree), or "D" (strongly disagree) for each statement. Take your time, and mark what your feelings are. Darken the appropriate circle on your separate answer sheet to correspond with your intended answer.

Any of the circles in the "E" column do not apply to this questionnaire. Be careful to avoid marking these circles under the "E". Answer only in one of the first four spaces.

Example: A B C D E (Remember Do Not Mark "E".)

☐ ☒ ☐ ☐ ☐

Start with number 1 and go through 40 on the separate answer sheet.



	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I make friends easily.	(A)	(B)	(C)	(D)
2. I generally feel comfortable in my classes.	(A)	(B)	(C)	(D)
3. I am not very cheerful.	(A)	(B)	(C)	(D)
4. If I have something to say, I generally say it.	(A)	(B)	(C)	(D)
5. I am easy to like.	(A)	(B)	(C)	(D)
6. My classmates do better in school than I do.	(A)	(B)	(C)	(D)
7. My studying is not satisfactory.	(A)	(B)	(C)	(D)
8. I know my subjects very well.	(A)	(B)	(C)	(D)
9. Making friends at school is easy.	(A)	(B)	(C)	(D)
10. I like my classmates.	(A)	(B)	(C)	(D)
11. I don't care if I make the same grades as my friends.	(A)	(B)	(C)	(D)
12. Students in my school make other students feel welcome.	(A)	(B)	(C)	(D)
13. I look forward to seeing my friends at school.	(A)	(B)	(C)	(D)
14. I have lots of friends in school.	(A)	(B)	(C)	(D)
15. My friends have difficulty with reading.	(A)	(B)	(C)	(D)
16. I get discouraged with my friends.	(A)	(B)	(C)	(D)
17. I like to read before I go to bed.	(A)	(B)	(C)	(D)
18. I am not a very good reader.	(A)	(B)	(C)	(D)
19. Reading is one of my favorite activities.	(A)	(B)	(C)	(D)
20. Reading is not very important.	(A)	(B)	(C)	(D)
21. When I have some free time, I like to read a book.	(A)	(B)	(C)	(D)
22. I like to read hard books.	(A)	(B)	(C)	(D)

	Strongly Agree	Agree	Disagree	Strongly Disagree
23. I like to answer questions about things I have read in school.	(A)	(B)	(C)	(D)
24. Most school books are not very interesting.	(A)	(B)	(C)	(D)
25. School is fair to students.	(A)	(B)	(C)	(D)
26. I often get discouraged in school.	(A)	(B)	(C)	(D)
27. I am thinking about quitting school.	(A)	(B)	(C)	(D)
28. I often feel upset in school.	(A)	(B)	(C)	(D)
29. I believe I am getting a good education in school.	(A)	(B)	(C)	(D)
30. Coming to school is worthwhile.	(A)	(B)	(C)	(D)
31. My grades in school discourage me.	(A)	(B)	(C)	(D)
32. I can get information at school concerning college and future work.	(A)	(B)	(C)	(D)
33. Math is interesting to me.	(A)	(B)	(C)	(D)
34. Math is not my favorite subject.	(A)	(B)	(C)	(D)
35. I would like to spend more time in working math problems.	(A)	(B)	(C)	(D)
36. Math is not very important.	(A)	(B)	(C)	(D)
37. Working out math problems is interesting.	(A)	(B)	(C)	(D)
38. Math really makes me feel good.	(A)	(B)	(C)	(D)
39. I don't like to explain math problems.	(A)	(B)	(C)	(D)
40. I would like to spend more time working with math.	(A)	(B)	(C)	(D)

Read each statement carefully before answering. Then choose the letter that most accurately reflects your opinion. Darken the circle containing this letter on the separate answer sheet. Watch your question numbers!

61. If everyone disobeys a civil law, then it is okay for me to disobey it too. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
62. Democracy and the democratic processes should be practiced within the school. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
63. To succeed in politics, one must compromise his principles. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
64. I feel that everyone should register and vote. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
65. I believe that every student should be taught to respect the laws of government. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
66. It has been said that the simplest form of government has its origin in the home. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
67. I believe that for every right and privilege there is a corresponding responsibility. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree
68. It is important to understand the purpose, structure, and functioning of the United Nations. \_\_\_\_\_  
a. Strongly agree  
b. Agree  
c. Disagree  
d. Strongly disagree

APPENDIX E

RESULTS OF ANALYSIS OF DATA FOR BOYS AND FOR GIRLS

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TABLE 54

AVERAGE GRADE EQUIVALENCY SCORES IN READING FOR EIGHTH GRADE PUPILS  
BY SEX AND EDUCATIONAL DEVELOPMENT DISTRICT

Comprehensive Tests of Basic Skills, Form Q, Level 3

Educational Development District	Number of pupils		Average grade equivalency Reading Vocabulary		Average grade equivalency Reading Comprehension	
	Boys	Girls	Boys	Girls	Boys	Girls
1	132	130	8.1	8.4	7.9	8.8
2	282	272	7.2	7.8	7.2	7.9
3	122	144	7.4	7.9	7.7	8.5
4	296	277	7.2	7.7	6.8	7.7
5	283	310	7.9	8.1	7.8	8.2
6	134	148	7.5	8.1	7.4	8.1
7	259	250	8.0	8.2	7.5	8.2
8	705	647	8.6	8.9	8.4	8.9
9	154	141	7.4	8.0	7.3	8.4
10	74	104	8.9	8.8	8.8	8.9
11	164	143	6.9	7.6	6.9	8.1
12	272	283	6.7	7.6	6.5	7.8
13	385	361	6.7	7.1	6.7	7.4
14	194	194	7.2	7.0	6.9	7.1
15	299	271	7.8	8.3	7.7	8.4
16	90	86	8.4	8.3	8.0	8.6
Kentucky-- Statewide	3,844	3,758	7.6	8.0	7.5	8.2

TABLE 55

**AVERAGE GRADE EQUIVALENCY SCORES IN LANGUAGE FOR EIGHTH GRADE PUPILS  
BY SEX AND EDUCATIONAL DEVELOPMENT DISTRICT**

Comprehensive Tests of Basic Skills, Form Q, Level 3

Educational Development District	Number of pupils		Average grade equivalency Language Mechanics		Average grade equivalency Language Expression		Average grade equivalency Spelling	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1	132	130	7.4	8.9	7.7	8.9	7.4	9.0
2	282	272	6.6	8.4	6.6	8.2	6.8	8.5
3	122	141	7.1	8.9	7.2	8.9	7.4	9.4
4	296	277	6.8	8.8	6.6	8.1	6.7	8.7
5	282	310	7.7	9.1	7.4	8.6	7.5	9.0
6	134	148	7.0	8.8	6.9	8.4	6.9	8.9
7	259	250	7.1	9.0	7.2	8.8	7.3	9.1
8	705	647	7.6	9.2	8.1	9.3	8.0	9.5
9	154	141	7.3	9.6	7.1	8.7	7.1	8.9
10	74	104	8.2	9.9	8.4	9.9	8.2	9.6
11	164	143	6.8	8.9	6.8	8.6	6.9	8.7
12	272	283	7.1	8.2	7.3	7.9	7.1	7.5
13	385	361	6.5	8.2	6.4	7.6	6.3	8.2
14	194	194	7.0	8.5	6.7	7.6	6.7	7.9
15	299	271	7.5	9.1	7.5	8.8	7.6	9.0
16	90	86	7.7	10.0	7.6	9.3	7.3	9.5
Kentucky-- Statewide	3,844	3,758	7.1	8.9	8.6	7.9	8.9	8.0

TABLE 56

**AVERAGE GRADE EQUIVALENCY SCORES IN ARITHMETIC FOR EIGHTH GRADE PUPILS  
BY SEX AND EDUCATIONAL DEVELOPMENT DISTRICT**

Comprehensive Tests of Basic Skills, Form Q, Level 3

Educational Development District	Number of pupils		Average grade equivalency		Average grade equivalency		Average grade equivalency	
			Arithmetic Computation	Boys	Girls	Arithmetic Concepts	Boys	Girls
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1	132	130	8.0	8.8	8.5	8.7	8.2	8.0
2	282	272	7.4	8.1	7.6	7.6	7.5	7.3
3	122	141	7.4	8.3	8.2	8.3	7.6	7.8
4	292	277	7.1	8.1	7.6	8.1	7.3	7.5
5	282	310	8.0	8.7	8.6	8.6	8.2	8.2
6	134	148	7.2	8.2	7.7	8.1	7.1	7.6
7	259	250	7.5	8.5	8.0	8.3	7.9	7.7
8	705	647	7.7	8.5	8.7	8.8	8.3	8.3
9	154	141	7.5	8.7	7.5	8.1	7.5	7.7
10	74	104	7.7	8.5	8.9	9.1	7.9	7.9
11	164	143	7.2	8.3	7.3	7.9	7.1	7.4
12	272	283	7.1	8.2	7.3	7.9	7.1	7.5
13	385	361	7.0	7.9	7.3	7.6	7.2	7.1
14	194	194	6.7	7.9	7.1	7.4	7.6	7.3
15	299	271	7.7	8.6	8.1	8.3	8.0	7.9
16	90	86	8.5	8.8	8.5	8.1	8.2	7.6
Kentucky-- Statewide	3,844	3,758	7.5	8.3	8.0	8.2	7.7	7.7

TABLE 57

AVERAGE GRADE EQUIVALENCY SCORES IN STUDY SKILLS FOR EIGHTH GRADE PUPILS  
BY SEX AND EDUCATIONAL DEVELOPMENT DISTRICT

Comprehensive Tests of Basic Skills, Form Q, Level 3

Educational Development District	Number of pupils		Average grade equivalency Reference Materials		Average grade equivalency Graphic Materials	
	Boys	Girls	Boys	Girls	Boys	Girls
1	132	130	7.7	9.1	8.2	8.9
2	282	272	7.0	8.2	7.4	8.0
3	122	141	7.6	8.9	7.9	8.6
4	296	277	7.2	8.3	7.5	8.2
5	282	310	7.9	8.9	8.4	8.7
6	134	148	7.7	8.9	7.6	8.4
7	259	250	7.6	8.6	7.9	8.4
8	705	647	8.3	9.3	8.8	9.2
9	154	141	7.1	8.8	7.9	8.7
10	74	104	8.3	9.4	8.9	9.2
11	164	143	6.8	8.6	7.1	8.1
12	272	283	6.6	8.4	6.9	7.7
13	385	361	6.5	7.9	7.0	7.4
14	194	194	7.9	7.4	7.3	7.3
15	299	271	7.7	8.8	8.3	8.5
16	90	86	8.6	9.0	9.3	9.3
Kentucky-- Statewide	3,844	3,758	8.7	8.1	8.4	8.2



TABLE 58

STATEWIDE PERCENTAGE OF POSITIVE RESPONSE FOR EIGHTH GRADE  
PUPILS BY SEX FOR ATTITUDINAL STATEMENTS

Kentucky Student Attitude Inventory

Attitudinal area number and description	Statement number	Percentage of positive response		
		All pupils	Boys	Girls
6.3.1 Attitude toward Self	1	92	92	94
	2	77	72	82
	3	82	80	86
	4	69	69	68
	5	84	82	85
	6	67	65	69
	7	62	60	65
	8	61	61	61
3.2.1 Attitude toward Peers	1	82	81	82
	2	95	94	95
	3	55	55	57
	4	68	65	70
	5	93	90	96
	6	88	87	89
	7	75	70	79
	8	59	61	57
1.8.1 Attitude toward School	1	49	38	59
	2	71	66	74
	3	41	34	49
	4	88	86	90
	5	59	48	69
	6	37	32	42
	7	55	57	54
	8	44	45	44
1.8.2 Attitude toward Reading	1	66	64	69
	2	41	40	41
	3	88	86	90
	4	58	56	60
	5	85	83	87
	6	83	81	86
	7	68	66	70
	8	75	74	76

TABLE 58 (continued)

STATEWIDE PERCENTAGE OF POSITIVE RESPONSE FOR EIGHTH GRADE  
PUPILS BY SEX FOR ATTITUDINAL STATEMENTS

Kentucky Student Attitude Inventory

Attitudinal area number and description	Statement number	Percentage of positive response		
		All pupils	Boys	Girls
1.8.3 Attitude toward Arithmetic	1	59	60	57
	2	38	39	38
	3	38	39	38
	4	87	85	88
	5	60	62	59
	6	32	33	31
	7	39	39	38
	8	41	42	40
4.3.1 Attitude toward Citizenship Concepts	1	87	72	94
	2	69	71	69
	3	21	23	19
	4	77	79	75
	5	93	92	94
	6	79	78	80
	7	90	87	93
	8	87	85	88

APPENDIX F

ITEM ANALYSIS RESULTS BY SKILL/CONCEPT

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TABLE 59.  
READING VOCABULARY ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Vocabulary Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District												
				1	2	3	4	5	6	7	8	9	10	11	12	13
1.1.1.1 Knowledge of the meaning of words in context	1	87	84	92	90	92	87	90	73	87	88	91	89	92	75	76
	2	88	83	88	84	86	83	88	74	90	88	85	95	89	70	68
	3	83	77	80	81	84	77	85	69	81	82	78	86	85	68	63
	4	84	82	86	87	86	67	88	75	88	85	84	95	90	69	71
	5	81	77	84	80	81	78	83	70	84	81	79	87	87	66	66
	6	80	72	72	68	79	67	78	62	75	80	71	82	77	58	56
	7	80	72	72	71	69	75	70	80	81	73	89	84	57	56	76
	8	80	72	76	75	79	70	78	65	76	77	74	79	76	57	60
	9	80	71	83	75	72	69	81	58	76	75	72	82	84	58	57
	10	79	67	71	70	68	65	75	60	69	75	66	80	66	54	54
	11	85	74	75	78	75	73	80	68	77	80	79	89	85	62	59
	12	78	70	78	68	72	70	74	62	77	76	70	86	76	58	53
	13	83	83	86	85	87	78	87	73	86	86	84	94	89	72	67
	14	74	67	71	68	70	67	73	63	72	74	70	84	81	53	52
	15	77	62	72	65	71	63	71	50	70	67	62	73	77	49	44
	16	72	55	58	55	64	52	58	48	57	69	52	61	56	39	38
	17	70	59	63	62	61	53	66	51	64	68	60	77	60	47	44
	18	72	61	58	68	59	59	66	50	63	67	64	71	51	50	52
	19	63	53	59	51	67	59	59	46	59	60	52	65	65	44	35
	20	75	63	66	62	63	61	70	56	68	72	66	77	76	49	51
	21	73	66	63	59	65	59	64	53	64	71	58	71	63	43	44
	22	84	80	84	83	79	80	87	73	87	85	81	87	90	71	68
	23	59	46	51	49	49	44	53	38	44	47	46	55	55	43	39
	24	64	41	60	53	58	56	62	52	62	69	57	72	66	44	40
	25	60	57	54	56	63	56	62	52	62	63	59	73	61	45	41
	26	49	41	46	43	42	39	51	36	43	47	41	48	29	31	33
	27	60	52	60	53	54	49	57	43	55	60	52	68	52	41	37
	28	49	37	35	39	33	31	43	31	39	43	39	41	40	32	30
	29	73	59	65	59	62	55	65	51	62	64	57	77	65	50	49
	30	73	63	72	61	66	61	70	55	69	73	61	77	68	49	44
	31	64	51	51	51	55	50	59	49	54	60	49	70	58	32	36
	32	44	29	31	31	27	29	27	27	33	26	28	33	37	21	20
	33	58	50	54	51	50	48	57	49	50	49	52	63	68	46	41
	34	54	44	43	41	48	42	53	38	51	51	39	55	47	34	34
	35	59	51	56	46	54	55	56	43	55	60	51	68	55	36	34

TABLE 59 (continued)  
 READING VOCABULARY ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
 Comprehensive Tests of Basic Skills, Form Q, Level 3  
 Reading Vocabulary Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.1.1 Knowledge of the meaning of words in context (continued)	36	67	48	47	41	38	43	59	46	46	60	54	51	66	36	33	41	56	50
	37	64	61	68	63	63	58	72	58	68	62	62	75	68	54	48	54	67	73
	38	41	34	36	36	38	35	35	33	37	42	36	46	37	42	19	21	37	36
	39	54	48	45	41	49	45	57	41	51	57	47	69	56	37	30	39	52	60
	40	57	39	42	33	45	38	43	27	44	47	40	53	40	28	27	30	40	55

TABLE 60  
READING COMPREHENSION ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Reading Comprehension Subtest

Skill/concept number and Description	Item number	Criterion percentage correct	Percentage correct by Educational Development District															
			Kentucky															
		percentage correct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1.1.2.1 Comprehension of words and phrases (simple rewording)	6	68	58	56	62	52	60	51	39	57	60	66	63	45	41	53	63	61
	8	84	82	78	86	81	84	72	81	82	82	84	89	66	69	74	82	85
	10	84	80	81	83	83	83	66	81	81	73	87	84	66	71	68	79	86
	19	73	60	64	67	65	70	58	70	61	61	70	76	58	60	57	69	63
	27	63	64	56	63	55	65	53	67	71	58	68	76	47	43	47	65	60
1.1.2.2 Comprehension (paraphrasing) of the meaning of ideas	29	58	50	15	61	48	52	45	51	51	49	63	66	47	42	41	54	56
	5	44	32	29	35	23	30	24	31	32	26	34	31	23	24	32	29	32
	12	68	47	46	49	43	58	46	51	56	47	62	53	34	33	36	49	49
	13	74	81	73	83	77	82	68	79	77	73	87	89	62	61	56	78	78
	14	84	77	76	80	64	83	68	81	82	79	93	84	61	59	57	79	88
1.1.2.3 Comprehension of main ideas	24	81	78	71	78	70	80	65	75	77	76	85	82	56	57	65	77	83
	36	61	50	54	56	52	56	46	56	57	53	68	66	44	39	41	61	59
	42	82	79	67	76	69	81	60	71	70	72	82	79	61	60	61	77	78
	43	68	60	61	66	56	63	47	67	62	56	73	61	54	49	55	63	61
	44	78	77	74	77	72	79	62	74	74	77	84	84	62	64	63	80	78
1.1.2.4 Comprehension of relationships	2	84	80	83	79	84	71	84	81	80	91	90	68	68	73	85	86	86
	11	84	77	77	78	79	71	70	78	79	82	76	64	67	70	81	77	77
	20	47	32	28	38	28	36	25	33	33	36	38	47	29	24	25	38	33
	26	55	43	35	38	32	46	33	35	38	41	40	37	34	29	29	37	38
	34	68	53	48	50	48	47	40	52	55	51	62	55	41	37	35	53	53
1.1.2.5 Comprehension (drawing conclusions) of given facts and statements	38	63	60	51	58	50	59	45	53	58	51	64	52	42	40	39	59	66
	45	56	51	43	50	37	53	43	40	43	49	59	60	42	36	36	51	41
	9	67	62	60	63	54	63	50	62	63	67	68	63	49	45	41	64	71
	21	79	84	74	75	70	80	62	78	78	75	84	82	67	66	62	77	85
	35	68	62	61	67	62	66	60	64	63	70	65	69	54	56	50	69	73
1.1.2.5 Comprehension (drawing conclusions) of given facts and statements	37	45	40	36	45	35	40	29	41	44	42	45	52	32	28	29	40	48
	39	58	59	55	63	54	57	47	51	59	53	65	66	44	45	47	56	64
	40	56	50	43	48	40	45	38	41	48	48	55	52	33	34	35	47	49
	41	70	68	60	63	57	73	53	63	64	63	69	63	49	49	55	69	63
	16	70	69	76	77	71	76	62	69	73	69	80	79	57	56	57	72	72
1.1.2.5 Comprehension (drawing conclusions) of given facts and statements	17	69	64	68	57	65	56	65	72	60	80	73	44	45	47	67	70	70
	18	63	60	62	69	59	61	49	59	59	59	64	66	48	50	48	61	67

TABLE 60 (continued)

READING COMPREHENSION ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE

Comprehensive Tests of Basic Skills, Form Q, Level 3

Reading Comprehension Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.2.5 Comprehension (drawing conclusions) of given facts and statements (continued)	28	85	75	77	77	84	74	82	69	78	81	79	86	84	64	61	65	80	86
	33	59	47	47	52	48	46	52	40	49	49	51	55	60	37	40	50	52	52
1.1.2.6 Comprehension (inference) of contextual clues	1	74	75	82	76	79	77	83	65	75	80	78	86	82	64	66	73	74	85
	3	73	66	67	68	69	62	75	61	63	68	69	82	71	54	60	64	67	73
	22	77	65	69	69	67	62	67	62	69	70	62	68	69	53	53	58	69	76
	23	64	50	51	53	55	24	55	43	52	56	52	57	56	42	38	46	51	55
	30	48	42	45	44	46	38	47	34	45	49	44	55	48	29	31	36	45	48
1.1.2.7 Analysis of indefinite or incomplete statements (extended meaning)	32	78	66	70	66	67	65	76	65	69	73	65	80	69	54	51	49	73	77
	4	69	63	71	63	71	62	66	60	66	66	63	79	69	54	52	61	70	68
	7	78	71	74	72	79	69	78	64	74	74	74	77	66	61	63	62	76	73
	15	79	73	82	72	79	71	81	63	77	80	77	89	89	60	57	58	78	83
	25	70	54	60	54	66	53	58	50	56	58	60	61	60	44	45	44	60	57
	31	45	37	38	42	34	43	30	36	43	36	51	47	25	27	34	36	48	

TABLE 61

LANGUAGE/SPELLING ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
 Comprehensive Tests of Basic Skills, Form Q, Level 3  
 Language/Spelling Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky		Percentage correct by Educational Development District															
			percentage correct	percentage correct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.3.1 Knowledge of correctly and incorrectly spelled words	1	90	83	90	86	92	87	92	77	89	84	87	94	92	75	74	76	91	40	
	2	79	73	77	77	81	75	84	69	77	78	75	87	74	66	61	60	82	38	
	3	89	78	84	85	84	81	87	74	85	82	80	88	84	68	67	68	85	40	
	4	82	75	79	78	83	79	80	69	79	80	74	91	71	65	65	81	39		
	5	83	72	80	78	79	73	81	63	77	78	72	80	66	62	63	62	74	35	
	6	79	74	71	80	80	76	82	67	83	78	78	87	79	64	63	69	82	36	
	7	83	75	76	78	82	77	81	66	79	81	79	86	81	68	65	64	78	34	
	8	76	65	79	72	66	64	72	58	71	70	64	77	60	55	56	53	70	35	
	9	82	67	76	67	77	65	76	64	73	69	74	84	71	59	62	56	71	33	
	10	81	73	79	79	76	78	80	67	81	82	71	82	71	60	61	64	79	38	
	11	78	68	71	74	73	75	78	63	74	67	70	74	71	63	63	65	72	31	
	12	70	56	60	51	64	54	65	51	63	64	58	70	71	44	42	42	61	31	
	13	70	55	60	54	64	51	67	57	62	60	47	66	50	40	53	62	27		
	14	77	68	79	74	78	67	78	61	71	73	70	81	76	63	57	58	72	31	
	15	78	68	70	72	79	70	76	63	74	74	69	78	66	57	40	63	74	38	
	16	66	53	59	56	59	56	60	47	56	56	56	69	56	44	48	41	60	25	
	17	63	51	49	48	59	51	57	47	57	58	56	68	65	41	36	42	58	27	
	18	69	59	68	62	69	60	66	49	65	65	57	72	68	46	41	48	67	30	
	19	64	53	59	49	64	52	63	50	57	62	51	69	63	44	36	41	55	27	
	20	61	54	60	49	60	56	57	46	55	62	55	74	69	48	41	44	57	27	
	21	59	49	51	54	57	46	56	48	49	56	46	56	55	42	39	40	54	23	
	22	61	51	57	44	62	53	60	43	57	55	50	68	60	46	42	45	56	23	
	23	61	48	51	52	61	45	55	44	58	53	47	59	48	39	35	43	52	22	
	24	55	44	49	34	53	45	53	38	50	47	45	61	63	41	36	33	50	22	
	25	68	55	63	54	66	53	63	46	58	60	59	69	71	46	43	48	60	26	
	26	63	57	63	56	67	55	67	52	59	65	64	65	58	47	42	52	58	28	
	27	57	47	51	48	61	44	49	37	57	54	42	52	55	44	35	37	45	22	
	28	58	48	44	54	58	44	48	42	46	59	52	55	56	41	35	42	47	28	
	29	41	30	29	37	37	29	36	23	33	31	32	47	35	26	22	19	33	16	
	30	48	36	33	28	48	35	40	24	37	41	40	52	42	29	31	33	40	17	



TABLE 62  
LANGUAGE MECHANICS ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Mechanics Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.4.1 Application of punctuation skills	1	83	74	75	77	75	80	82	75	77	77	80	91	79	64	63	75	81	41
	2	66	65	70	67	65	68	67	62	72	68	63	76	60	55	61	64	70	31
	3	70	53	50	58	49	57	59	46	56	60	54	67	66	44	42	51	56	35
	4	61	59	55	63	66	61	68	53	62	62	61	69	63	51	53	60	60	28
	5	66	52	56	44	61	48	56	47	59	58	57	68	56	39	42	47	58	23
	6	75	65	77	70	67	68	71	54	67	68	65	77	76	60	55	60	69	36
	7	75	68	75	70	69	70	78	62	71	74	76	79	84	60	56	58	75	35
	8	70	63	61	62	66	63	73	63	65	62	67	76	58	58	61	70	34	
	9	78	72	74	72	79	68	80	67	78	76	75	88	89	62	65	58	79	36
	10	73	76	79	78	74	82	69	80	76	77	84	85	65	65	63	81	36	
	11	75	61	60	61	69	60	69	57	62	64	70	74	87	53	50	52	69	32
	12	67	77	68	72	74	67	76	61	73	70	67	74	65	58	60	60	75	34
	13	89	77	83	79	86	78	86	71	81	81	83	89	85	66	70	66	84	41
1.1.4.2 Application of capitalization skills	14	71	65	65	63	74	67	76	59	68	66	72	78	73	58	57	64	75	32
	15	64	56	63	56	68	59	58	50	59	57	67	69	61	48	48	63	34	
	16	43	29	27	26	41	28	39	25	35	33	33	38	48	22	20	27	31	14
	17	61	61	61	56	67	60	67	56	70	58	67	72	60	54	58	60	65	34
	18	56	52	56	53	57	58	57	44	52	52	61	68	53	46	44	50	57	27
	19	60	58	68	54	66	56	63	47	58	59	65	74	69	48	50	60	67	28
	20	72	80	80	77	80	79	88	65	80	79	83	89	89	65	66	75	85	39
	21	76	81	74	81	78	87	65	78	77	84	86	82	64	67	73	84	39	
	22	56	50	53	45	61	54	64	44	56	54	55	59	45	41	40	45	53	22
	23	66	59	57	56	70	61	70	49	63	62	64	74	65	53	47	56	65	31
	24	53	38	33	31	43	39	44	29	42	40	49	51	37	33	31	37	42	22
	25	57	41	47	38	46	37	49	37	48	42	47	51	48	33	35	47	45	22

TABLE 63  
LANGUAGE EXPRESSION ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Language Expression Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct by Educational Development District														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.1.5.1 Application of correct grammatical usage	26	57	51	57	50	51	59	50	54	55	51	59	55	51	50	54	57
	27	65	51	53	59	52	56	46	56	53	43	67	74	48	44	47	54
	28	90	60	83	85	78	86	70	83	79	83	86	87	67	69	74	87
	29	88	88	86	88	84	88	75	88	85	87	89	92	72	74	75	87
	30	63	60	58	54	52	55	53	56	59	56	57	44	47	45	47	55
	31	54	51	42	43	45	46	39	44	50	45	61	53	33	29	36	43
	32	66	54	49	51	53	58	45	56	51	53	71	77	43	41	49	52
	33	58	37	36	48	36	49	40	44	43	37	55	61	31	30	32	43
	34	88	88	87	88	85	86	74	84	82	87	91	89	72	69	75	90
	35	72	65	62	64	63	69	54	63	67	68	69	68	55	54	66	67
1.1.5.2 Comprehension of clarity and/or economy of expression	46	60	57	53	61	54	61	48	48	61	57	70	65	52	41	46	58
	47	63	64	57	65	56	65	50	61	62	60	70	68	54	52	56	61
	48	72	72	69	67	67	71	58	68	70	68	80	74	55	53	50	67
	49	55	40	51	48	48	50	38	51	51	48	57	48	42	39	42	53
	50	41	31	27	36	23	32	23	32	29	31	42	42	27	23	32	31
	51	43	37	38	42	33	43	27	41	40	36	43	45	29	25	26	38
	52	24	29	61	28	24	24	23	31	24	23	34	35	22	21	20	23
	53	49	49	46	51	45	53	36	46	47	42	54	61	41	35	38	45
	54	44	35	26	29	33	33	23	30	31	30	30	44	28	24	27	30
	55	66	52	52	55	51	59	48	54	56	59	61	61	44	39	39	50
1.1.5.3 Comprehension of the author's intention (word choice)	36	57	47	45	55	39	45	41	50	47	42	60	50	37	30	30	52
	37	69	57	50	63	46	51	42	51	64	54	70	66	38	33	36	56
	38	70	55	53	56	66	51	62	46	58	61	60	71	68	49	42	63
	39	76	60	55	66	74	59	65	50	64	65	65	79	74	56	49	45
	40	70	61	56	57	68	54	68	58	67	70	68	82	63	51	48	68
	41	61	45	47	43	42	41	47	43	51	58	44	64	53	34	30	43
	42	70	65	72	75	70	72	56	75	65	74	75	66	57	59	56	72
	43	79	79	73	80	69	73	62	73	76	77	86	81	57	57	60	76
	44	74	68	67	73	60	68	61	62	69	69	73	87	56	53	54	69
	45	73	73	75	76	70	75	61	75	70	72	78	81	66	65	65	76

TABLE 64  
ARITHMETIC COMPUTATION ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct										Percentage correct by Educational Development District																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1.1.6.1 Application of addition skills	1	92	89	83	94	96	91	95	80	95	90	91	90	97	82	81	75	96	97																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</

TABLE 64 (continued)

## ARITHMETIC COMPUTATION ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE

Comprehensive Tests of Basic Skills, Form Q, Level 3  
Arithmetic Computation Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.6.3 Application of multiplication skills (continued)	43	64	58	59	55	66	58	71	50	57	57	62	65	56	54	51	59	66	63
	44	55	46	57	48	46	42	51	36	51	44	58	53	47	41	40	40	54	61
1.1.6.4 Application of division skills	13	92	88	86	95	96	89	95	79	92	90	91	93	95	88	79	74	94	96
	14	86	84	82	91	89	85	91	77	88	87	82	80	81	75	75	73	91	94
	15	81	71	75	79	80	68	78	63	78	74	71	78	74	61	58	65	78	75
	16	78	69	68	70	74	65	80	63	73	70	74	72	73	62	58	54	73	84
	29	77	72	77	78	79	69	79	63	78	73	76	77	79	64	62	58	79	82
	30	85	77	87	85	76	86	63	80	78	81	83	81	83	69	68	63	87	89
	31	73	65	72	72	76	62	72	58	64	69	70	77	78	53	55	53	75	75
	32	61	52	53	61	55	44	59	46	59	49	56	58	63	47	42	49	57	62
	45	54	48	53	48	51	45	57	38	53	49	60	47	42	41	39	45	55	59
	46	54	45	45	42	52	26	51	38	48	45	55	45	45	42	38	35	45	53
	47	65	50	57	52	60	44	55	39	50	49	58	49	48	48	45	45	56	52
	48	69	55	61	55	62	54	65	47	58	60	54	64	45	43	44	46	67	57

TABLE 65  
ARITHMETIC CONCEPTS ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehension Tests of Basic Skills, Form Q, Level 3  
Arithmetic Concepts Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.7.1 Knowledge of arithmetic concepts	2	75	65	66	69	73	66	70	55	68	69	65	82	65	54	56	50	70	66
	5	80	69	71	70	67	68	76	56	73	74	68	80	77	57	53	66	74	80
	10	84	81	79	87	84	89	70	86	84	81	91	87	71	71	70	87	89	
	17	72	65	71	67	67	62	78	51	68	68	67	75	73	56	50	54	74	67
	21	66	61	64	53	68	50	62	48	53	53	46	72	48	47	43	45	59	61
	24	61	61	55	58	59	62	73	47	63	67	57	76	66	54	49	55	69	63
1.1.7.2 Comprehension of arithmetic concepts (converting form)	1	89	87	82	94	92	89	92	77	95	88	87	97	84	78	77	74	92	95
	16	67	62	57	63	71	61	72	51	70	69	67	72	65	47	47	48	71	57
	19	73	67	66	67	71	66	70	55	70	74	67	84	76	50	49	60	73	77
	23	69	59	64	53	74	55	70	50	58	62	50	65	56	50	48	55	64	67
	25	63	52	57	49	61	57	55	38	58	54	42	59	65	46	44	47	54	56
	27	57	46	53	44	63	46	55	42	42	48	37	67	39	40	35	44	48	54
1.1.7.3 Comprehension of equations	28	73	65	68	64	69	63	72	50	69	71	67	78	63	55	54	59	74	66
	30	62	59	60	57	59	57	68	52	61	68	58	76	58	42	44	54	65	60
	3	85	80	74	85	84	79	89	67	84	82	81	93	85	69	67	77	85	88
	8	76	75	76	80	83	77	86	62	78	76	77	93	87	65	65	64	80	86
	18	69	67	69	70	71	65	78	56	71	72	70	82	74	54	53	51	74	80
	4	81	75	76	78	87	75	81	67	81	65	72	84	74	67	67	63	78	77
1.1.7.4 Comprehension of comparative relationships	13	79	72	64	80	80	71	79	62	73	82	75	84	76	62	64	70	79	66
	20	67	54	52	51	59	49	61	42	58	49	57	66	38	53	45	45	62	56
	22	64	48	45	46	53	47	59	38	49	65	51	49	52	41	38	42	52	48
	6	79	69	66	69	77	68	71	59	76	73	69	81	73	62	60	59	74	75
	7	69	64	59	63	66	62	72	58	70	71	64	67	63	53	53	53	68	72
	9	81	77	73	80	80	76	84	69	84	78	79	84	90	65	68	73	83	88
1.1.7.5 Analysis of the components of arithmetic problems (organization)	11	72	62	61	61	67	59	72	55	61	68	65	70	68	51	47	53	65	71
	12	64	58	67	71	64	70	59	69	68	62	70	65	55	56	52	71	72	
	14	71	64	60	61	71	63	70	58	70	72	70	81	71	49	52	52	67	70
	15	62	57	64	63	59	63	45	71	68	63	76	65	51	54	53	66	64	
	26	57	48	45	45	59	44	53	45	43	52	47	64	56	41	37	48	52	51
	29	51	46	50	40	51	44	52	40	49	51	48	61	52	39	35	40	46	52

TABLE 66  
 ARITHMETIC APPLICATIONS ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
 Comprehensive Tests of Basic Skills, Form Q, Level 3  
 Arithmetic Applications Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.8.1 Comprehension of relationships (ratio, time, part-whole, sequence, geometric)	33	71	62	58	65	68	60	72	51	67	65	66	68	81	51	48	58	69	70
	34	82	71	72	80	82	74	83	63	83	82	82	81	84	65	67	70	84	90
	35	61	45	38	46	46	43	54	33	46	49	50	51	50	39	33	44	56	43
	36	68	59	58	57	64	54	66	46	65	65	60	69	68	51	48	46	64	63
	39	54	37	28	31	41	31	41	26	37	40	36	37	42	38	32	41	44	37
1.1.8.2 Comprehension of problem-solving (selecting methods)	40	79	68	64	71	71	65	75	60	73	72	71	78	74	58	55	66	75	76
	37	85	77	75	82	83	77	83	69	81	79	80	82	84	68	67	65	82	88
	43	72	63	66	67	67	63	71	52	71	67	64	72	69	53	51	51	70	73
	45	67	55	58	53	64	53	57	44	57	65	53	55	65	44	42	44	64	58
	50	54	37	42	37	35	35	46	34	35	37	33	45	44	35	34	31	41	43
1.1.8.3 Comprehension of problem-solving (correct solution)	31	82	80	73	89	84	81	87	69	85	83	77	87	92	74	70	68	89	90
	32	82	80	79	84	83	80	87	71	86	81	80	86	84	69	72	69	86	91
	36	79	68	70	75	75	66	78	56	71	75	67	70	74	57	56	58	74	69
	42	72	52	53	46	50	48	65	35	54	61	48	56	65	39	37	42	61	61
	46	65	60	55	61	68	59	70	53	61	65	59	53	74	51	49	49	68	73
1.1.8.4 Analysis of the components of arithmetic word problems	48	64	46	45	49	50	44	50	37	50	53	50	47	45	40	34	34	48	48
	41	78	71	69	77	72	69	77	59	73	75	70	78	79	62	58	65	75	83
	44	78	55	50	56	61	55	67	46	60	57	55	57	50	47	47	49	63	60
	47	69	61	60	61	63	59	68	48	61	69	64	68	69	53	49	45	68	65
	49	59	45	48	42	55	42	55	34	46	50	45	47	47	38	35	34	54	35

TABLE 67

STUDY SKILLS/REFERENCE MATERIALS ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE

Comprehensive Tests of Basic Skills, Form Q, Level 3

Study Skills/Reference Materials Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct	Percentage correct by Educational Development District															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.1.9.1 Knowledge of dictionary skills	16	64	57	61	59	66	60	62	56	61	59	57	67	71	54	50	50	62	35
	17	68	63	69	64	69	63	71	58	68	66	66	76	79	56	54	52	70	36
	18	67	62	60	68	68	66	69	59	65	63	67	76	76	56	52	50	71	35
	19	64	67	73	69	75	70	79	62	73	72	69	80	77	60	53	52	76	35
	20	56	60	63	59	67	61	72	54	64	64	56	70	63	55	49	50	68	32
1.1.9.2 Knowledge of library use	1	62	58	55	56	64	56	71	51	54	65	67	70	81	53	48	56	60	31
	2	78	68	69	73	79	66	75	62	74	72	71	78	82	56	64	76	38	38
	3	59	54	49	56	65	56	57	49	58	56	61	65	45	52	49	53	60	23
	4	56	53	44	55	63	51	62	50	56	58	59	61	61	49	42	47	58	30
	5	67	59	59	64	61	56	66	59	67	65	56	68	68	48	53	61	31	31
	6	50	49	50	45	52	50	60	40	51	50	50	53	71	49	45	46	46	23
	7	69	59	57	59	66	60	67	56	64	64	59	71	66	50	47	54	62	32
	8	74	69	69	74	81	68	77	64	75	74	67	79	82	59	59	66	76	31
	9	83	71	69	72	81	74	78	66	78	80	69	83	87	60	60	53	80	38
	10	70	68	65	73	77	68	78	65	75	78	67	79	73	54	53	60	76	32
	11	78	70	68	76	73	70	82	67	76	79	74	80	85	57	53	58	78	37
	12	71	60	61	69	63	66	68	58	62	66	64	66	65	50	47	53	66	35
	13	60	44	38	48	49	40	51	43	52	47	45	47	35	36	37	36	52	26
	14	62	55	50	59	63	56	62	48	58	62	60	70	60	46	45	48	63	22
	15	65	60	61	63	63	66	69	54	66	64	60	67	63	50	48	58	65	23

TABLE 68  
STUDY SKILLS/GRAPHIC MATERIALS ITEM ANALYSIS INFORMATION--PERCENTAGE CORRECT BY EDUCATIONAL DEVELOPMENT DISTRICT FOR EIGHTH GRADE  
Comprehensive Tests of Basic Skills, Form Q, Level 3  
Study Skills/Graphic Materials Subtest

Skill/concept number and description	Item number	Criterion percentage correct	Kentucky percentage correct																Educational Development District															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																
1.1.10.1 Comprehension of symbols, legends, and data presented in graphic or tabular form	21	63	71	77	79	75	80	68	78	79	76	78	76	60	61	70	79	36																
	37	54	58	64	68	59	62	67	66	60	73	66	47	47	68	35																		
	38	47	58	54	64	49	62	42	58	62	58	60	69	44	42	49	58	30																
	48	46	50	47	53	48	57	44	55	55	48	60	63	43	37	40	52	26																
	50	47	51	51	60	43	62	44	56	58	53	61	61	43	41	45	59	30																
1.1.10.2 Comprehension of relationships presented in graphical form	23	76	77	89	83	89	75	89	82	88	91	89	70	71	73	88	42																	
	24	73	64	74	72	71	75	65	73	74	69	85	73	56	58	59	71	35																
	26	68	70	79	72	67	77	62	73	75	76	80	81	55	55	59	76	36																
	30	46	42	43	49	49	55	40	47	46	39	51	47	33	33	38	49	17																
	35	47	43	45	55	45	52	41	48	55	47	63	56	36	37	36	34	29																
	36	39	46	44	50	47	53	40	44	53	43	47	44	37	33	34	48	26																
	39	49	54	57	54	54	59	45	60	63	60	57	63	46	41	45	66	32																
	40	56	55	70	71	64	72	55	65	68	64	71	61	51	51	53	70	34																
	46	54	56	56	60	55	64	50	55	60	54	57	66	45	42	44	61	29																
	47	59	64	62	70	66	74	61	71	67	66	72	82	48	49	53	69	34																
	1.1.10.3 Comprehension (drawing conclusions) of graphic data	22	67	68	72	74	69	73	60	74	72	70	72	81	55	55	63	73	32															
		25	53	53	63	61	55	62	47	57	61	61	66	58	43	44	49	66	32															
		27	56	53	54	60	46	57	42	51	54	56	56	58	42	37	36	55	25															
29		44	42	46	53	42	49	44	45	51	46	54	48	36	36	37	49	21																
34		52	49	60	65	52	67	47	62	65	60	63	65	46	45	49	65	32																
41		67	71	72	75	70	76	57	71	72	73	74	77	59	59	57	76	39																
42		32	41	29	34	30	37	29	38	31	34	35	40	31	25	29	36	22																
43		40	34	33	37	34	41	34	39	40	39	43	45	30	25	27	37	18																
44		64	68	70	71	70	78	65	67	69	70	74	77	59	57	57	75	36																
49		50	54	59	64	62	67	52	64	60	60	67	71	53	52	53	67	32																
1.1.10.4 Analysis of graphic data and determination of extended meaning		28	46	43	46	56	44	51	42	50	50	53	59	45	35	33	41	51	22															
	31	75	74	87	84	82	86	73	81	82	83	82	81	69	69	71	86	42																
	32	53	48	62	64	55	63	50	57	60	61	66	61	46	43	48	62	26																
	33	51	47	52	60	48	58	42	56	57	55	55	48	42	42	44	59	26																
	45	48	50	47	50	45	53	38	51	57	50	58	53	42	32	40	55	27																



APPENDIX G

AVERAGE INTELLIGENCE QUOTIENT SCORES FOR  
EIGHTH GRADE SAMPLE PUPILS

TABLE 69

AVERAGE IQ SCORES OF EIGHTH GRADE PUPILS FOR BOYS AND GIRLS  
AND TOTAL SAMPLE BY EDUCATIONAL DEVELOPMENT DISTRICT

Short Form Test of Academic Aptitude, Level 4

Educational Development District	Number of pupils	Average IQ Score		
		Boys	Girls	Total Sample
1	262	97	101	99
2	554	94	97	95
3	263	93	98	96
4	573	93	97	95
5	592	99	99	99
6	282	94	98	96
7	509	97	99	98
8	1,352	101	103	102
9	295	94	99	96
10	178	93	99	96
11	307	92	96	94
12	555	90	95	93
13	746	91	94	92
14	388	97	96	96
15	570	96	99	97
16	176	101	99	100
Kentucky-- Statewide	7,602	96	98	97